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The Bradshaw Lecture

ON

THE TREATMENT OF CANCER.

Delivered before the Royal College of Surgeons of England on Dec. 1st, 1904.

BY A. W. MAYO ROBSON, D.Sc., F.R.C.S.ENG.,
SENIOR VICE-PRESIDENT OF THE COLLEGE.

MR. PRESIDENT AND GENTLEMAN,—My response to your kind invitation to deliver the Bradshaw lecture was prompted by a profound sense of the honour conferred on me, but as I began to realise the full responsibility of the step my difficulties as to the choice of a subject sufficiently important have given me many anxious moments. In selecting the treatment of cancer I offer no apology, for no one can question the importance of the subject or that it holds a most prominent position in the thoughts both of the medical profession and the public; moreover, I felt that such an opportunity as the present might be utilised to offer a protest both against the fatalistic tendency to delay and the senseless running after false gods in the treatment of this fell disease. I cannot lay claim to being alone in my advocacy of these views, for several of my colleagues on the Council of this College and many other workers have also urged them; but as a practical surgeon I can contribute facts both from my own and from the experience of others which will, I hope, help to carry the conviction that cancer, if it be discovered early and thoroughly removed, is by no means so hopeless a disease as is usually thought.

Of the true cause of cancer we really know nothing; even if we could accept the view of those pathologists who consider malignant disease as simply due to an alteration of somatic into generative elements we should be still begging the true cause, nor can we accept unreservedly the statement of the able superintendent of the Imperial Cancer Research Fund that from the histological character, method of growth, and absence of specific symptomatology it is not permissible to seek for the causative factor of cancer outside the life processes of the cells, for our present knowledge does not warrant such a positive statement, and it would appear from the observations of several competent pathologists that facts are not incompatible with the theory that cancer may be produced by an intracellular parasite which stimulates the cell to excessive multiplication. The fact that no parasite has been hitherto discovered is no proof that the quest is hopeless and should be no deterrent to a continuance of research work. How many years were spent in fruitless search before Koch found the tubercle bacillus?—a discovery that has placed tuberculosis on quite another platform and one which bids fair to the stamping out of the disease. Does anyone doubt the origin of measles, scarlet fever, or syphilis from organisms, yet how much uncertainty there is? Recently Councilman has apparently proved that vaccine bodies form one phase of the life-history of the protozoon said to cause small-pox and Dr. Roswell Park and Dr. Gaylord regard the cell inclusions in cancer as being of the same nature, though the presence of these organisms in cancer tissue is, of course, no proof that they are the cause of the disease and the same remarks apply to Bosc's arguments and experiments on sporozoa. That bacteria are not the only possible pathogenic parasites the history of malaria has proved. We are still in almost total ignorance of some of the lowest forms of life and of their biological peculiarities, nor are we sure that Koch's laws will be valid for them.

Until recently our ideas of the infinitely small were limited to the atom but the atom has been split up and the bombardments witnessed within a Crookes's tube are said to be due to the broken-up particles termed electrons, which in size are reputed to present as great a contrast to an ordinary bacterium as a bacillus does to the human body. Have we any proof that there are not organisms infinitely smaller than the smallest known micrococcus?—organisms which may be ultra-microscopic and which may be contained within the cells known as cancer cells and be the true cause of their eccentricities. I had the privilege of seeing a microscope at the Royal Institution in April of this year which bids fair to give us a range of vision far beyond anything that Helmholtz conceived possible when he argued that from physical reasons it was impossible to construct a microscope which would give a large scale image, and experience has so far justified his conclusions that the best work has been done with magnification of from 400 to 500 diameters, yet I saw there objects distinctly under a magnifying power of 10,000 diameters. It will help the appreciation of this point to say that the eye of the house-fly if depicted on the same scale as shown by the microscope in question would be an object 24 feet long by 13 feet broad. This discovery will doubtless reveal much that was previously unknown and possibly bring into view our quest, though as yet this is a mere anticipation.

Even of the predisposing causes of cancer we know next to nothing, though of theories there are many. My friend, the late Sir William Mitchell Banks, and others thought over-feeding might afford an explanation; one physician asserts that it is uric acid and would limit the intake of nitrogen, whereas others consider it due to an excess of carbohydrates and suggest that starches and sugar should be limited. The teetotalers, of course, find in alcohol a possible cause and the non-smokers decry tobacco. Some advise us to eschew salads and all uncooked vegetables and others would have us abolish salt as an article of diet. In fact, there is scarcely any form of diet or luxury that has not at one time or another been condemned. Do not all these theories make one feel that until something more definite is found out the public have a just cause of complaint against those who on insufficient evidence not only would cut off their luxuries one by one but would even tax the necessaries of life with suspicion?

The investigations conducted by Dr. E. F. Bashford and Dr. J. A. Murray, of the Imperial Cancer Research Fund, confirm those of previous workers that malignant growths exist in all branches of the vertebrata, and the idea that domestic animals alone are affected with cancer is also exploded by the facts now made known to us. A special interest attaches to the cases of carcinoma in fish, two of these occurring in fish living in the open sea. A wild mouse also has been found to be affected with spheroidal-celled carcinoma. As to men in a state of nature, during some weeks that I spent in the wilder parts of North America this year I made inquiries among the natives themselves and also from medical men who had had experience of their diseases and I was told that cancer is not unknown among them, even in the wilderness away from civilisation. From the great diversity of the food, habitat, and conditions of life of men and animals in which cancer occurs it may be concluded that external agencies of food, climate, and general environment have apparently little or no causative influence. The new tumour that arises in an animal from the transplantation of a portion of a growth arises by cell division from the tumour cells introduced and presents in all stages of its growth the same minute structure; further, growth can apparently only take place in animals of the same species and fails in even nearly related animals. Any agency which destroys the vitality of the cell renders the results of transplantation completely negative, showing that the virus is a living one.

One exciting cause only we are certain of, and that is irritation in a variety of forms. Another fact we can absolutely prove is that cancer is at first a local disease and only later a constitutional malady. Mr. Jonathan Hutchinson insisted on this 30 years ago and it has been confirmed by modern research, as the following statement by Dr. Bashford will show. "Our observations on animals show that malignant growths are always local in origin and of themselves produce no evident constitutional disturbance whatever. These facts are in full accord with accumulated clinical experience in man."

The question of infectivity is of such importance that I cannot pass over it without expressing my views on the subject.

INFECTIVITY.

Although cancer is not infectious in the ordinarily accepted sense of infection there is a very large accumulation of facts which seems to prove that it is locally infective and capable of distribution by contact and inoculation. Bosc[1] has given a number of examples of transference of

[1] Le Cancer Maladie Infectieuse a Sporozoaire.

cancer from man to animals and *vice versâ* as well as from animals of one species to those of other species, but further researches must be made and the results verified before these can be accepted and used in argument, especially in view of the work to which I have just referred.

There is ample proof of the possibility of the transference of cancer artificially from animal to animal of the same species, and clinical evidence not only of auto-infection but of infection from man to man. In 1889 Hanan proved the possibility of inoculating cancer from rat to rat. In 1894 Moran conveyed the disease from a cancerous mouse to other mice. Later, Jensen of Copenhagen made a great number of successful inoculations and from the same graft of cancer Dr. Bashford and Dr. Murray have performed a large number of successful experiments which have been, and are being, carefully recorded. Through their kindness I have had the opportunity of seeing a number of the mice with tumours in various stages and of seeing microscopic sections of growths that have been removed. The tumours arise from the actual cells introduced without any participation of the cells of the host, acting in every way as a parasite. I understood Dr. Bashford to say that healthy mice mixing with the cancerous ones had not become infected, but Borrel of the Pasteur Institute found that on putting cancerous mice into a cage with healthy ones a considerable number of the latter became infected with the disease.

With regard to contagion from man to man, a considerable number of well-verified cases of genital cancer, apparently communicated from the wife with uterine cancer to the husband, have been reported. Gueniot collected 28; other striking cases have been communicated by Duplouy, T. G. Laslett, E. Hooper May, and by my colleague Mr. R. Clement Lucas. There are many single cases of infection from man to man recorded which it would not be safe to argue from—e.g., among others, Dove recorded two cases of epithelioma said to have been conveyed by an infected pipe and Bosc quotes the cases of three children who developed cancer of the breast after having slept for a long time with their mother who was afflicted with mammary cancer.

The possibility of conveyance of contagion by insects has apparently been experimentally proved by Moran who showed that by introducing fleas which had occupied the cages of cancerous mice into cages occupied by healthy mice, the latter with few exceptions developed cancer within a few months. Bosc relates a case on the authority of Forgue, where a man was bitten on the cheek by a large fly which he crushed *in situ* and in which exact spot there developed in a short time a rapidly growing epithelioma.

Cancer is undoubtedly auto-infective, hence the danger of an imperfect operation which by distributing the cancer cells implants numerous foci of disease. I recently saw a marked example of such a condition in a patient who consulted me with a view to operation. She gave the history of having had a cancer removed from the breast over three years previously by a radical operation; at the end of that period a small lump was noticed in the clavicular portion of the pectoral muscle, the skin being healthy and non-adherent. A surgeon removed the muscle, including the lump, but finding glands enlarged at the top of the axilla he attempted to get them away by digital enucleation with the result that they burst and infected the whole of the wound, which, however, healed by first intention. Within two months every needle puncture was the site of a small cancerous nodule and numerous other nodules appeared over the chest wall and over the clavicle and shoulder, leading to a rapidly fatal termination. We must all have seen similar cases and the lesson conveyed is that if possible cancerous tumours should be removed without preliminary incision, leaving a wide area of healthy tissue around the growths, and wherever practicable the nearest lymphatic glands and vessels going to them should be removed whether enlarged or not. If the glands be already infected it is of the utmost importance that they should be taken away cleanly without rupture and wherever possible in the same piece as the tumour. If for diagnostic purposes the tumour has to be incised the exploratory incision should be closed by sutures, the skin purified, the knife and needles boiled, and the surgeon's hands sterilised before proceeding with the operation. If, unfortunately, the wound has become soiled it should be irrigated with a large quantity of saline solution or of some antiseptic lotion so as to wash away any loose masses of cancer cells or infective material, which if left will probably become engrafted and grow as in the case that I have mentioned.

My friend Dr. Mayo of Rochester, U.S.A., insists on the importance of searing the edges of the stomach wound with the actual cautery after partial gastrectomy in order to avoid leaving any infected surface after the removal of a gastric cancer; and the importance of this I would strongly emphasise should it be necessary to incise the gastric wall near the growth, though when the incision is made wide of the tumour this is no longer necessary. Some English surgeons apply absolute phenol for the same reason to any doubtfully infected surface after removal of a cancerous tumour. So long as the tumour is not ulcerated it is probably not contagious, but from the moment that ulceration occurs transmission to the patient or others, granted a suitable medium, may be possible. Such transmission is, however, probably rare, as the conditions necessary to a successful transmission must be difficult to realise.

The following facts among others that could be related seem to prove without doubt the auto-infectivity of ulcerated cancer. Williams[1] relates a case of an ulcerating cancer of one thigh infecting the opposite thigh by contact. Cripps reported a case of ulcerating cancer of the breast infecting the skin of the inner side of the arm where it had come in contact with the growth. Roswell Park, Waldegar, Quincke, myself, and others have seen cancer to involve the whole length of the trocar puncture after tapping for ascites due to abdominal cancer. I have seen the needle punctures and the adjoining skin, previously healthy, to become infected after the removal of cancer of the ovary, and Sippal has quoted some similar cases. I have seen and others have reported cases of a suprapubic drainage opening becoming infected after the removal of epithelioma of the bladder. Hurry Fenwick has noted its transmission from one surface to another in the bladder, an observation which I can also confirm. I have heard of a case where an epithelioma of a projecting lower lip, which could just touch the tip of the nose in an edentulous old man, gave rise to a similar growth on the tip of the nose, and I have seen a second epithelioma to arise on the upper lip opposite to an epithelioma of the lower lip, and a growth to arise inside the cheek opposite to an epithelioma of the jaw, and also opposite to one of the tongue. Schimmelbusch has reported cancerous infection of the lip through the finger nails of a patient who was handling his cancerous ear.

It would form an interesting subject for inquiry to ascertain how often cancer of the stomach follows on, or accompanies, cancer of the œsophagus and cancer of the tongue and mouth, owing to the swallowing of cancerous particles. Such cases have been reported by Cornil, Klebs, Lurcke, and Menetrier. That the two are often associated is recognised but I suspect that the association is more frequent than is generally supposed.

From these observations it seems highly probable that cancer is both contagious and inoculable among human beings, as it undoubtedly is among the lower animals. These facts are so suggestive that although it may not be necessary to advise segregation of cancer patients, it would seem most desirable that all dressings taken from cancer patients should be burnt, that linen soiled by cancerous sores should be destroyed or disinfected by boiling, that contact with cancerous ulcers, whether of the lip, tongue, breast, uterus, or other parts, should be avoided, and that common use of beds and utensils with cancerous patients should not occur.

THE TREATMENT OF CANCER.

The very fact that cancer is often only submitted to the surgeon when it has either ceased to be a local disease or, if still local, when it has invaded the tissues to so large an extent that its complete removal is difficult or impossible, has not only misled the public but has even biassed many members of our profession as to the true facts of what surgery can do for this fatal disease. "Too late" has yet to be said in one-half or three-fourths of the cancer cases when seen by the operating surgeon. Many even intelligent persons, having abandoned all hope of permanent benefit from surgical treatment, throw themselves into the arms of so-called cancer specialists who fatten on the credulity and ignorance of their victims and only when all hope of benefit by recognised methods has passed are they allowed to escape from their clutches.

The methods of treatment, psychical, physical, medicinal, photo-therapeutic, electrical, &c., are almost too many to mention, certainly too many to describe, in a limited time;

[1] Brit. Med. Jour., 1887, p. 1369.

but it ought to be made known that one and all have been found wanting except in rodent ulcer, and so far as our present knowledge is concerned in the early diagnosis and immediate, complete, and wide removal lies the only hope of cure in malignant disease. In considering the surgical treatment of cancer I propose to treat of preventive, curative, and palliative operations.

PREVENTIVE TREATMENT.

Until the true and ultimate causative factor in the life-history of the cancer cell is discovered a preventive treatment generally applicable is unlikely to be arrived at; but I think that the ultimate discovery of a prophylactic is very hopeful, for it seems likely that, whether the cellular theory or the parasitic theory be the correct one, the biological problem of altering the life cycles of the cells in the former case or of forming an antiserum in the latter will be surmounted. Hitherto, however, no serum has been found that in any way limits or benefits the disease and my experience coincides with that of other observers as to the worthlessness of the serum treatment now being employed and advocated by certain so-called cancer specialists.

PREVENTIVE OPERATIONS.

Pre-cancerous conditions.—The so-called pre-cancerous stage of malignant disease may be due to disturbances of nutrition, to previous injury, to congenital defect, or to other departures from the normal conditions. Senility and decadence of tissues which have passed the period of their usefulness and are about to undergo physiological rest are predisposing factors. Predisposing conditions also exist in certain parts of the body where embryological vestiges or rests are found and in certain regions as the pylorus and the cæcum, and at the lines of junction of skin and mucous membrane. In certain situations pre-cancerous conditions can be readily recognised; this especially applies to the tongue, lips, larynx, uterus, and the skin, suggesting strongly that cancer is a new implantation on a prepared ground. Probably if we could only find it, every cancer, whether external or internal, follows on a pre-cancerous condition, such as cancer of the gall-bladder on ulceration produced by gall-stones, cancer of the stomach on chronic gastric ulcer, epithelioma of the penis on irritation under a phimosis, cancer of the bladder on papilloma or on ulcers due to calculi, and cancer of the rectum and colon on stercoral or other ulcers. The liability of benign tumours, especially on epithelial surfaces, to undergo malignant changes is well recognised, hence the removal of such is generally advisable.

A general acceptance of the view that cancer has usually a pre-cancerous stage and that this stage is one in which operation ought to be performed would be the means of saving many useful lives for it would lead to the removal of all suspicious epithelial conditions before the onset of cancer. As Mr. W. H. A. Jacobson puts it: "What is a man the worse if we have cut away a warty sore on his lip and when you come to put sections under the microscope you find no nested cells? If you have removed a painful hard-based ulcer of the tongue and with it, perhaps, an eighth part of the organ, and when all is done and the sore healed a zealous pathological friend demonstrates to you that the ulcer is not cancerous, need your conscience be troubled? You have operated in the pre-cancerous stage and you have probably effected a permanent cure of what would soon have become an incurable disease."

I hold that the arrest or removal of known causes, as well as the abolition of discoverable pre-cancerous conditions, whenever or however occurring, constitute true preventive treatment. I will give some examples. Cancer of the mouth, and especially of the tongue and lips, occurs very much more frequently in man than in woman, the increased frequency in the male sex being probably due in a great measure to the abuse of tobacco—a well-known source of irritation if used in excess and which should be stopped as soon as it begins to irritate. M. Tillman states that of 77 cases of cancer of the lip only seven occurred in females and of these three were smokers. A moderate use of tobacco may not be injurious and the employment of holders to cigars or cigarettes and the use of non-irritant mouthpieces to pipes will be likely to lessen the mechanical irritation as well as the irritative effect of nicotine. Since the clay pipe has in a great measure been given up, epithelioma of the lip has diminished very materially. I remember well how frequently the disease was seen in my early hospital experience 30 years ago as compared with the few affected with smoker's lip at the present time.

As showing the effect of irritation from another cause, Helferich[3] saw a cancer of the lip in a fisherman who constantly held some of his tackle in his lips, as fishermen both amateur and professional so constantly do. Sharp edges of teeth or rough plates on artificial teeth are well-known causes of irritation which frequently set up chronic ulcers ending in epithelioma of the cheek or of the tongue. The removal of such sources of irritation, though obviously wise, is frequently not attended to until a cancerous ulcer is initiated. Needless to say, a more frequent resort to the dentist would obviate this cause.

Mr. H. T. Butlin, in speaking of ulcers of the tongue, says? "It is impossible for the most practised eye and touch to determine whether the border-line is passed in these delicately balanced cases and if within a week of suitable treatment the ulcer instead of commencing to heal slowly extends or even continues as it was, no time should be lost in removing it." In leucoplakia of the tongue the risk of epithelioma is very great; years may elapse but sooner or later cancer will almost certainly supervene. Mr. Jonathan Hutchinson says that no medicine or local applications can be relied on to cure true leucoplakia of the tongue and it is wise to operate in the pre-cancerous condition and so to remove the source of the danger. The disease is often so extensive that the patient will not consent to total excision, but if not before, directly local induration occurs, and ulcers, warts, or thickening supervene, a radical operation should be strongly urged. It naturally follows, then, that in any chronic ulcers—syphilitic, tuberculous, or dental—of the mouth or tongue, if not yielding to treatment, a free removal of the ulcer in the pre-cancerous condition is decidedly a wise precaution as it is by a prompt removal of suspicious ulcers or papillomatous masses of the lips, tongue, or cheek that cancer will be prevented.

Scrotal epithelioma, or chimney sweeper's cancer, is becoming a disease of the past, as the cause, irritation of the scrotum by soot, has been removed since the use of the long brush for sweeping and the need no longer exists for the sweep to ascend the chimney. Here legislation has determined the prevention of the disease. As exemplifying the irritative effects of soot as a cause of cancer I was told of a gardener who developed a cancer at the bend of his right forearm where he regularly carried a soot basket and Dr. C. W. MacGillivray tells me that the same effect is produced not infrequently in one of the Edinburgh industries by the irritative effects of petroleum among those working in the paraffin factories, the effect showing itself as epithelioma of the forearm. This is surely a preventable cause. While the prevention of chimney sweeper's cancer has been the result of a legislative act, the prevention of penile cancer among the Jewish persuasion is the result of a religious rite, for phimosis is the chief predisposing cause of cancer of the penis and if circumcision were carried out among the Gentile population it would doubtless have the same beneficial effect.

Pre-cancerous skin conditions.—It is well known that moles and warts on various parts of the body are frequently the starting point of malignant growths. Nearly all cases of cancer of the skin occur on parts of the body open to irritation, face, hands, genitals, or nipples, and on surfaces where there has been some lesion, such as warts, eczema, sebaceous tumours, ulcers, scars, &c. Where such tumours or spots are in a position that renders them liable to irritation they should be excised but whenever they begin to enlarge in any position it is certainly wise to remove them before the onset of malignant disease to which they are so prone.

As exemplifying the successful results of treatment in these cases (even if the pre-cancerous stage has passed), which above all others can be caught at an early stage; at the International Congress on Dermatology at Berlin in 1904 Dr. Schlesinger said that between 1894 and 1901, in Professor Bergmann's clinic, 171 patients were operated on for cancer of the skin and of these 76 per cent. had had no recurrence or had died from other causes than cancer.

Pre-cancerous conditions in the gall-bladder and liver.—In considering preventive treatment, cancer of the gall-bladder, and by continuity of the liver, is of great interest on account of its relationship to gall-stones. In the long series of operations in the third edition of my work on "Diseases of the Gall-bladder and Bile Ducts" there are recorded 56 operations for cancer of the biliary passages (not including

[3] Deutsche Medicinische Wochenschrift, 1890.

cancer of the pancreas); of these, 41, or 73·2 per cent., were associated with cholelithiasis, and although gall-stones were not found at the time of operation in the other 15, the history of intermittent pain extending over a long period is suggestive that some of these may also have owed their origin to the irritation of biliary concretions. Zenker[4] found gall-stones in 85 per cent. of cancers of the gall-bladder and Musser, from an analysis of 100 cases, gives the proportion associated with gall-stones as 69 per cent. Courvoisier found gall-stones present in 74 out of 84 cases of primary cancer of the gall-bladder; Brodowski[5] in 100 per cent.; Jayle[6] in 23 out of 30; Bertrand in 14 out of 15; and Siegert in 95 per cent. of primary, but only in 15 or 16 per cent. of secondary carcinoma of the gall-bladder. According to Schroeder, 14 per cent. of all cases of gall-stone patients suffer at some time from cancer of the biliary passages, and Naunyn is of opinion that half of the cases of chronic jaundice diagnosed as cholelithiasis are complicated with cancer or are due to cancer alone.

Mr. C. Beadles[7] in a paper before the Pathological Society of London, stated that out of 100 post-mortem examinations at the Cancer Hospital, four were cases of primary carcinoma of the liver and all had calculi in the gall-bladder; 36 had secondary carcinomatous growths in the liver, but there were no gall-stones present in any of them. Of nine cases of primary carcinoma of the liver at Colney Hatch five were males and four were females, and gall-stones were present in seven, being absent in one male and one female. These facts support the theory of irritation, as does also the fact that the disease occurs much more frequently in women than in men and in much the same relative proportion as gall-stones. Musser's cases included 75 females and 25 males, while Siegert found that of 93 cases 79 were females. Dr. H. D. Rolleston has drawn attention to the fact that out of 36 cases of cancer of the bile-ducts, gall-stones were present in half the number.

These facts establish an undoubted relationship between cholelithiasis and cancer of the gall-bladder and ducts, and as gall-stones produce characteristic symptoms and are therefore as a rule early diagnosed, and since they can be removed in the early stages before serious complications have supervened with extremely little risk (in my experience extending over some hundreds of operations, less than 1 per cent.) the preventive treatment for cancer of the gall-bladder is obviously removal of the source of irritation. So impressed am I with the importance of this view that although I know the symptoms of gall-stones, which frequently depend on the associated catarrh, can often be relieved for a time by general treatment (though the gall-stones producing the catarrh cannot be removed by medicine), yet I consider it wise to recommend their early removal, not only because it can safely be done, but also because the symptoms are likely to recur and to lead to other complications, and not least important because in a considerable percentage of such cases malignant disease will be likely to supervene if the irritation be not removed.

Pre-cancerous conditions in the mammary glands.—In the breast there are certain well-known pre-cancerous conditions, such as eczema of the nipple (first described by Sir James Paget as a precursor of duct cancer), chronic inflammatory enlargements (the chronic cirrhosing mastitis of Billroth, the interstitial mastitis of English pathologists), cysts and adenomata, and last, but not least, induration following on injury. Mr. W. Roger Williams, quoted by Bosc, says that out of 137 cases of cancer of the breast one out of four made statements as to former injury.

Many of these conditions will, if properly and seriously attended to, yield to treatment. Patients have usually themselves to blame in ignoring what they seem to think are trifling ailments, though sometimes the medical attendant may, to avoid frightening his client, make light of the condition, so that the patient feels justified in neglecting any advice. I would say, far better to alarm and to cure than to lull into a false sense of security and have to counsel operation later when the conditions are less favourable for radical treatment. If eczema of the nipple does not speedily yield to treatment the nipple should be freely excised and with it the first portion of the primary ducts. If a chronic inflammatory swelling does not disappear under adequate treatment, the lobule or lobules involved ought to be removed, or if general, the breast should be ablated. According to Sprengel, 30 out of 100 women attacked with cancer of the breast had had mastitis. Cysts or tumours, even if simple, should be taken away and if on examination after removal there is any suspicion that the simple stage is passed the whole breast should be removed and with it the nearest lymph glands. It ought to be recognised that the watching of a doubtful tumour of the mammary gland, until it becomes definitely malignant, is an unjustifiable and a blameworthy procedure. Removal in this stage can be done without risk, and while the anxiety of the patient is relieved the fear of malignancy developing is removed.

Pre-cancerous conditions of the stomach.—Pre-cancerous conditions of the stomach are in certain cases distinctly recognisable and if diagnosed and treated might save many patients from carcinoma. As the stomach is one of the commonest sites of cancer, if even a percentage of cases can be saved from malignant disease by timely treatment, a great advantage will have been gained.

The question of the cancerous transformation of an ulcer of the stomach was first discussed by Cruveilhier in 1839. Rokitansky in 1840 also recognised the difference between ulcer and cancer and said that the latter might be implanted upon the former. To Dittrich, writing in 1848, belongs the chief credit for drawing attention to the subject. He described in 160 cases of new growth six cases of cancer developing in the immediate vicinity of active or healed ulcers, two cases of the association of cancer and ulcer, and two cases in which the cancer was limited to a certain part of the margin of the ulcer, the rest remaining sound. Brinton in 1856 recognised the possibility of the grafting of cancer upon long-standing ulcer.

Lebert in 1878 considered that the cancerous transformation occurred in 9 per cent. of ulcers, but Zenker in 1882 expressed a strong opinion that all cases of cancer of the stomach were secondary to ulceration. In the same year Hauser, assistant to Zenker, examined minutely a case of malignant growth in the stomach secondary to ulcer in a patient who had died from pneumonia and from whom, or of whom, no clinical history could be obtained. In the following year he devoted his inaugural thesis to a further consideration of this and other cases. He attributed the cancerous degeneration in an ulcer to glandular changes caused by inflammation and cicatrisation exciting and favouring epithelial proliferation. He called attention for the first time to the persistence of free hydrochloric acid in the stomach contents in cases of cancer grafted upon ulcer.

In 1889 Rosenheim found in 56 cases of cancer, four in which the malignant change was secondary to ulceration. In all these free hydrochloric acid was present and he therefore considered this as a sign of the first importance. He wrote: "In cases where the signs of cancer are undoubted the persistence of free hydrochloric acid signifies, *a priori*, that the cancer has developed from an ulcer." Hayem in 1901 described a condition of "pre-pyloric ulcero-cancer" in which an ulcer, situated almost invariably close to the pylorus, undergoes a cancerous change, the resulting growth being one of exceptional malignity.

G. Fuetterer in 1902 made an extensive research into the question of the origin of carcinoma of the stomach from chronic round ulcer. His conclusions, briefly stated, were as follows. 1. If a carcinoma develops from a chronic ulcer of the stomach then this development occurs from those parts of the edges of the ulcer which are most exposed to mechanical irritation by the contents of the stomach. 2. In the pyloric region it is the lower pyloric margin of the ulcer which is most exposed to mechanical irritation, and from which carcinoma develops. But other parts of the edges may be the ones involved when dilatations and adhesions have changed the position of the organ. 3. Development of carcinoma from ulcers of the stomach in the pyloric region occurs with great frequency, while such a development occurs less often in other parts of the stomach.

In 1903 Audistere recorded examples and made very careful examination of four personal cases. His conclusions are summed up in the following manner: 1. Simple ulcer of the stomach may be the starting point of a cancerous growth, a condition of things which appears to be not infrequent. 2. This malignant degeneration affects, as a rule, the chronic ulcers, especially in the pre-pyloric region. The change begins in the mucous membrane at the margin of the ulcer. 3. The transformed ulcer presents for a long

[4] Deutsches Archiv für Klinische Medicin, 1899.
[5] Naunyn, p. 153.
[6] Soc. Anat., 1893.
[7] THE LANCET, March 9th, 1895.

time almost the same symptoms as a simple ulcer; the differential diagnosis is therefore very difficult. 4. Nevertheless, the diagnosis can be made by noting the persistence of the symptoms, the resistance to treatment, the wasting, and the progressive anæmia. The pain, as a rule, is more severe than in cases of simple ulcer. 5. In cases of cancer, apparently primary, the origin in an ulcer may be suspected if the pain is unusually severe and paroxysmal, if hyperchlorhydria is pronounced, or if hæmatemesis or perforation occurs. The prognosis is decidedly more grave, for the progress of cancer grafted upon an ulcer is more rapid and bleeding or perforation is liable to occur.

If these conclusions are correct, and my experience tells me they are, then it is quite clear that we must in all cases in which an ulcer of the stomach resists treatment or its scar narrows the pylorus recommend an early gastro-enterostomy or excision of the ulcer in order to prevent the development of carcinoma. If a gastro-enterostomy has been performed then the mechanical irritation of the ulcer in the pyloric region by food is reduced and the friction necessary to produce a carcinoma will probably not occur. The estimates of the frequency of this malignant implantation upon a chronic ulcer vary greatly. The number of carcinomata beginning in chronic ulcer is reckoned at 3 per cent. by Haberlin, Fenwick, Plange, and Berthold; 4 per cent. by Wollman; 6 per cent. by Rosenheim and Hauser; 9 per cent. by Lebert; and 14 per cent. by Sonicksen. Zenker, as already mentioned, believes that all, or almost all, carcinomata are secondary to ulcer. In no less than 38 out of 64 cases (59·3 per cent.) of cancer of the stomach on which I have performed gastro-enterostomy for the relief of symptoms, the disease having advanced too far for gastrectomy, the long history of painful dyspepsia suggested the possibility of ulcer preceding the onset of malignant disease.

The origin of carcinoma in an ulcer of the stomach is only another instance added to many of which we have knowledge of the effect of persisting irritation in establishing malignant changes. Carcinoma occurs most frequently in those areas in which the ulcers chiefly lie. Whatever the frequency of the malignant change in chronic ulcer may prove to be, the fact of its occurrence should be an additional incentive to the earlier surgical treatment of ulcers which prove rebellious.

I firmly believe that greater regard for oral asepsis and more careful attention to the teeth would save much stomach disease, and I think one of the chief causes of the frequency of gastric ulcers among the mill operatives of Yorkshire and Lancashire is carious teeth with its accompaniment, oral sepsis. I am also firmly convinced that the early and thorough medical treatment of gastric ulcers and the surgical treatment of those that prove rebellious, either by gastro-enterostomy or excision, would do much to lessen the amount of cancer of the stomach.

Pre-cancerous conditions in the pelvic organs of women.—Cancer is perhaps more commonly noticed to supervene on a recognisable pre-cancerous condition in the uterus than is observable in any other organ, and the frequency with which cancer develops in multiparæ and especially in those who have had lacerated cervix points distinctly to cause and effect. The frequent advent of cancer on old scars is well known in various parts of the body, especially in those placed where their nutrition is liable to disturbance as in the scars of burns. Now in the cervix uteri we see the scars of old ulcers, the result of laceration in childbed, often remaining untreated for years and leading to constant distress, with backache, leucorrhœa, and other well-known symptoms. Only a few months ago I saw a case of this kind pass from the simple to the malignant stage; an operation which was declined on both occasions when I saw the patient was only consented to six months later, after epithelioma had developed.

It is interesting to note that cancer of the cervix uteri is infrequent in sterile women whose cervical canal has not been subjected to the lacerations which often occur in parturition, whereas cancer of the body of the uterus is of equal frequency in those who have and have not borne children. More careful attention to post-puerperal conditions and the performance of the simple operation described by Emmett would remove this source of danger in a great number of cases. Bernard[8] has reported six cases of cancer of the uterus apparently due to the irritation of pessaries injudiciously used. Uterine adenomata doubtless predispose to cancer of the uterus and the coexistence of mucous polypi and epithelioma is not without its significance as early operation in such cases would probably prevent the onset of malignant disease. The malignant degeneration of uterine myomata is probably commoner than is generally thought and on several occasions I have removed what was supposed to be a simple myomata of the uterus and found a sarcomatous change going on. Pilliet and Costes[9] state that they saw this occurrence 11 times in 21 cases. Now seeing that myoma of the uterus can be removed by hysterectomy with very small risk I make it a rule that whenever a myoma begins to enlarge at or near or after the menopause to advise its removal; while I hold with those writers who recommend the removal of "fibroids" whenever the symptoms of hæmorrhage, pressure, or pain seriously interfere with health or comfort. Surely it is better to accept a risk of from 2 to 3 per cent. with a view to the removal of a disease that in itself promises to endanger life and which in a certain percentage of cases undergoes a malignant change, than to have to operate when cancer or sarcoma has already developed and when the chances of recovery from operation will be seriously diminished and the chances of permanent cure very much lessened.

The fact that malignant disease of the ovary begins in the first place as a small tumour, often cystic, and that cystic disease is apt to undergo malignant degeneration, affords good ground for recommending operation at an early stage in the case of any ovarian tumour, when perchance the disease may be caught in a pre-cancerous condition, or should malignant disease have already commenced it will be limited and removeable. Dermoids may undoubtedly undergo malignant transformation and knowing their structure it is a wonder that this does not occur more frequently.

Papilloma of the ovary naturally tends to malignancy, though at first it is simple and when removed thoroughly does not recur; even if in these cases the peritoneal surface has already become warty owing to rupture of the cyst and ascites has developed the removal of the growth has, in my experience, in a number of cases led to recovery, for with the removal of the original tumour the peritoneal warts have shrivelled and the ascites has disappeared. I recently saw a good example of two sisters affected at the same time with papilloma of the left ovary passing on to malignancy. Unfortunately in both cases an examination had not been submitted to until the presence of ascites and secondary tumour demanded attention, though in each case the symptoms had been noticed for quite six months. Had they been operated on when pain and pressure first drew attention to something being wrong, a cure could probably have been effected in both. Seeing that ovarian tumours have frequently long pedicles and that early removal means a very complete and perfect operation almost devoid of risk, it is surely better to take these cases at the earliest possible moment and as soon as the diagnosis is made to remove them, thus saving the patient the sufferings incident to a growing abdominal tumour and at the same time removing the dangers of the supervention of more serious malignant disease.

Pre-cancerous conditions in the intestines.—Though on account of its inaccessibility to direct examination a pre-cancerous condition is difficult to diagnose in the upper intestines generally, it will be found in many cases that there have been premonitory symptoms pointing to ulcer or colitis. Irregular pains, the passage of mucus or blood, and constipation possibly alternating with diarrhœa, should rouse the suspicion of organic disease and lead to a careful physical investigation that may reveal irregular peristalsis or possibly a tumour which, even if not caught in the pre-cancerous stage, will be recognised and treated in the incipient and curable stage of cancer.

Any disease high up in the rectum or in the lower loop of the sigmoid flexure is quite out of reach of the finger and cannot be palpated through the abdominal wall unless of considerable size; here, as a rule, disease has had to be diagnosed by symptoms alone and symptoms sufficiently definite to warrant exploration only come on when the disease has passed the most favourable time for radical treatment. Fortunately, this region of reproach no longer remains, as by means of the electric sigmoidoscope invented by Professor Strauss of Berlin, to which attention was drawn by Mr. J. P. L. Mummery, a clear view of every portion of the inside of the bowel may be obtained even as high as

[8] Thèse de Paris, 1895.

[9] Société de Biologie, 1894.

the top of the sigmoid flexure, and this without any inconvenience or danger to the patient. It will do away with the need for exploratory operations in this region for mere diagnostic purposes and will enable disease more frequently to be removed in the pre-cancerous condition. I have recently seen a case where, from the symptoms, cancer was strongly suspected, though examination by the finger and by the ordinary proctoscope left me still in doubt; an examination by the electric sigmoidoscope showed a papillomatous condition high up in the rectum surrounded by inflamed mucous membrane, a condition that might have been the precursor of cancer but which was capable of removal and which I have since successfully treated. In the rectum, the earlier treatment of hæmorrhoids and ulcers and of all chronic sources of irritation is obviously rational and advisable and may sometimes be the means of preventing the onset of malignant disease.

RADICAL TREATMENT OF CANCER.

By the radical treatment of cancer I mean the entire removal of the disease at an early period together with a wide margin of healthy tissue and, if practicable, the nearest lymphatic glands. In estimating what may be done for cancer by radical treatment, I do not think it sufficient simply to consider the mortality of any special operation, as has so often been done, when operative success was used as a cloak to mask therapeutic failure, but I want to know the ultimate results after the lapse of years of operations undertaken at an early stage of the disease where the cancer had been freely and widely excised. Nor do I think it fair to surgery to average the statistics of all surgeons or even of all hospitals but rather to select the statistics of operators interested in special lines of work who can show what is capable of being done in their own particular region. The levelling process should, from my point of view, be a levelling up to the best and not an averaging down to the worst.

May I give an example? In estimating the mortality of gastro-enterostomy for a work on which I have been recently engaged I had occasion to examine the statistics of a large number of hospitals and of many individuals, with the result that I found the mortality varying in different hands from 3 to 50 per cent., and almost exactly similar observations were made with regard to the operation of cholecystotomy, the mortality varying between 1 and 30 per cent. Now it would be manifestly unfair to say that the mortality of gastro-enterostomy is 50 per cent. and of cholecystotomy 30 per cent. because certain surgeons have been unfortunate, when other experienced operators in England, America, and the continent of Europe can show in some hundreds of cases that gastro-enterostomy can be done with less than 5 per cent. mortality and cholecystotomy with only 1 per cent.

Cancer of the breast.—The radical treatment of cancer of the breast may be conveniently taken first, as the subject has been considered from the statistical point of view more carefully and completely than have operations for cancer in any other part of the body. Personally, in my experience in hospital and in private practice I can point to a very large number of radical mammary operations and I have been astonished to find how many, especially of the private cases, where through the kindness of the family physicians I have been able to trace the after-histories, have survived beyond the three years' limit and how many are still living and well many years after operation.

The following is a brief account of all the operations for cancer of the breast which I have done in private; they are 62 in number:—

1 alive and well 12 years after operation.
1 " " 10 " "
1 " " 9 " "
2 " " 8 " "
1 " " 7½ " "
1 " " 7 " "
3 " " 6½ " "
1 " " 6 " "
2 " " 4 " "
1 " " 3 " "
3 " " 2½ " "
1 " " 2 " "
2 " " 1½ " "

1 lived 20 years and died from chronic bronchitis.

1	" 2	"	"	meningitis
1	" 2	"	"	phthisis
1	" 1 year		"	enteric fever
1	" 6 months		"	apoplexy

} Without recurrence.

3 cannot be traced.

The following are cases that recurred:—

1 lived 6 years and had recurrence of the disease.
2 " 5 " " " "
2 " 4 " " " "
1 " 3½ " " " "
2 " 3 " " " "
2 " 2½ " " " "
5 " 2 " " " "
9 " 1 " " " "
4 " 6 months " " "
1 " 4 " " " "

There was no operative mortality. Thus 23 survived the three years' limit. 20 are now alive and well at periods up to 12 years after operation. Others operated on within a year are not included in the statistics. Five died from other diseases without recurrence of cancer, one 20 years after the major operation. 29 had recurrence, though in eight it was over three years subsequently to operation. Eight could not be traced.

My early operations were not so thorough as those done in later years, otherwise I feel sure that the recurrences would have been fewer. The successful removal of recurrent growths was well shown in a case in which a patient survived over 20 years after her first operation during which time she underwent more than 20 minor operations for the removal of small recurrent nodules as soon as they made their appearance. She ultimately died from chronic bronchitis at an advanced age. My recollection as a student of operations for cancer of the breast was that they consisted of local removals of the tumour of the most imperfect description and the presence of glands in the axilla was by some surgeons considered a bar to interference, for to open up the axilla in those days was no trifling matter. Following on Mr. Moore's work at the Middlesex Hospital came an important paper by my old friend and colleague Sir William Mitchell Banks, whose recent death we all sincerely lament. This paper, advocating early and free removal and the clearing out of the axilla in all cases, gave a great impetus to the radical treatment of mammary cancer. In 1880 Samuel W. Gross wrote: "The wiser course is to explore the axilla even if its glands cannot be detected from without"—a view which is now universal among surgeons. In the Lettsomian lectures for 1900 Banks gave the results of 175 patients operated on for cancer of the breast, of whom 108 had remained free from local recurrence. Of the 108, 73 lived over three years, as follows: cases that lived between three and six years after operation, 40; cases that lived between seven and 14 years after operation, 28; and cases that lived between 16 and 21 years after operation, five.

To one of the distinguished honorary Fellows of this College, Dr. Halsted of Baltimore, belongs the distinction of carrying operations for cancer of the breast to their widest limits, and when I had the opportunity of observing that eminent surgeon operating in the Johns Hopkins Hospital some years ago I felt that his thorough work ought to show positively whether extensive removal was to be the operation of the future. Dr. Halsted has been so kind as to furnish me with his completed statistics (prepared by Dr. Bloodgood) from 1889 to 1902, which will, I think, convince the greatest sceptic as to what may be done by thorough and complete work and without a doubt it establishes the fact that "what is worth doing is worth doing well." The complete statistics, too valuable to omit but too long to read now, will be published as an addendum.

The following is a brief account of the ultimate result of 161 patients admitted to the clinic with operable primary tumours of the breast on which complete operations were performed between June, 1889, and August, 1899. In August, 1902, 60 patients were living and cured, seven had lived over three years and died from other causes, and two had died from other causes within the three years' limit, necropsy showing no signs of recurrence. This gives 69 cases, or 42·8 per cent., positively cured. An analysis of the 161 patients shows that 83, or 51·5 per cent., survived the three years' limit. The operations performed consisted of complete excision of the breast, both pectoral muscles and axillary contents in one piece, and complete excision of the contents of the supraclavicular fossa. During 13 years 305 patients with primary and 38 with secondary tumours were admitted to the clinic and of these it is worth noting that 83, or 27·2 per cent., were inoperable owing to delay in seeking surgical assistance. It is also of interest to note

that in no case was local recurrence or internal metastasis observed after three years.

Mr. T. Bryant has recorded from his own experience 46 cases of amputation of the breast for cancer, in which the patients survived the primary operation from five to 32 years. In 17 cases there had been no recurrence; of these, 13 were alive and well 5, 6, 8, 8, 8, 9, 9, 9, 10, 10, 14, 14, and 16 years later respectively, and four had died from other causes without recurrence after 5, 13, 14, and 20 years. In 3 recurrence took place in the scar of the primary operation and a secondary operation was performed a year later; two of these were alive and well five years and one 10 years after the primary operation. In 16 other cases there was recurrence at the site of the primary operation and in all but three a secondary operation was performed; these survived the primary operation 6, 7, 12, 12, 30, 10, 16, 13, 30, 10, 32, 12, 9, 12, 12, and 10 years respectively. A number of these patients were living and well at these periods subsequently to operation. In 10 cases recurrence took place in the second breast, but the patients were living 10, 24, 2, 23, 7, 10, 4, 4, 13, and 2 years respectively after the first operation and four of them were in good health and free from recurrence after the removal of both breasts at 10, 7, 4, and 13 years respectively.

My friend Mr. Pridgin Teale has told me of 17 instances in which his patients have survived from eight to 26 years. Mr. Marmaduke Sheild, in a paper read before the Royal Medical and Chirurgical Society in 1897, collected 44 cases from various sources where no recurrence took place after the primary operation for periods varying from six to 20 years. Some of Mr. Teale's cases already referred to were included in these. Mr. Sheild collected some cases of remarkable prolongation of life after repeated operations—for instance, Dr. C. J. Cullingworth's case: six years' repeated operations and then 49 years of health; Mr. Edmund Owen's case, in which three early operations were followed by 20 years' immunity. A case of my own that had been operated on by Mr. Morant Baker and afterwards by Mr. F. Durham and in which I had performed several subsequent operations, the patient living for about 20 years after the first operation.

My colleague Mr. W. Watson Cheyne, adopting a most thorough and radical operation on lines similar to those of Dr. Halsted, shows very satisfactory results, as the following figures will show. Of 34 operations for cancer of the breast in private patients 17 were alive after periods varying from six to 13 years.[10] He says that taking the average of all cases operated on, favourable or otherwise, something like 50 per cent. will remain well for a number of years, and in those cases in which the tumour is small and well limited and the glandular infection is slight the proportion of successes will be considerably greater. In these views I most thoroughly agree. Professor Rodman, in speaking of the surgical treatment of cancer of the breast, said that of 629 cases operated on by American surgeons, 44·16 per cent. had survived the three years' limit.

This large series of cases proves beyond doubt that cancer of the breast if operated on early and with thoroughness is by no means the incurable disease that many still think, but that in a very large percentage, 50 or more, the patients may look for over three years' respite, and in 40 per cent. to a much longer period of freedom and many to a genuine cure; for there can be no question of cancer being a local disease at its commencement; and if it can be radically removed there is no reason for any further development from the primary focus.

RADICAL TREATMENT OF CANCER OF THE STOMACH.

The stomach is one of the most frequent sites of cancer, and it is interesting to note that in spite of the frequency of carcinoma of the breast and the uterus in women, cancer of the stomach carries off a greater number of victims even among women than either. It was only in 1879 that Péan performed his first pylorectory for cancer of the stomach, and in 1881 when Billroth did the first successful operation, up to which time and long after by many the disease was held to be incurable.

At first sight it would appear to be hopeless to expect that eradication of the disease could be performed in an organ situated as the stomach is and so freely supplied with blood vessels and lymphatics, yet a careful study of its anatomy shows it to be fixed only at the cardiac extremity and with the exception of that part the remainder is as freely accessible for operative purposes as are the intestines; moreover, the disease if caught early can be as completely removed as cancer of the colon. I can point to a number of patients in good health on whom I performed partial removal of the stomach years ago, and to one especially, a man, aged 42 years, from whom I removed the whole stomach except a small portion of the dome and the cardiac orifice, four years ago. He was reported last month to be robust and well, to be able to take quite ordinary diet, and to have followed his business without any disability from within two months of his operation up to the present time. In another case, that of a woman, aged 54 years, a partial gastrectomy was performed at the same time as removal of the gall-bladder, both organs being involved in cancer. She remains well now in the fifth year after operation. In another case the patient, a woman, aged 50 years, remains well nearly four years after the removal of the centre of a cancerous hour-glass stomach; the proximal and distal healthy portions having been joined over a decalcified bone bobbin. A number of other cases might be referred to in which the patients are apparently in perfect health after radical operations performed one to three years ago.

It must be borne in mind that for a radical operation to be successfully performed it is necessary that there should be early diagnosis and immediate operation. It is useless to wait until a tumour develops or until coffee-ground vomit shows that ulceration has occurred. In that way valuable time is lost, glandular infection occurs, and the extension of the disease makes an operation more difficult to perform, at a time when the patient is less able to bear it on account of anæmia and exhaustion. As the early symptoms are often equivocal and uncertain we must be prepared to confirm the diagnosis by exploration and then be prepared to go on and perform a radical operation. Medical treatment cannot cure and can do very little even to prolong life; surgery offers the only chance of cure.

Whenever a patient at or after middle age complains somewhat suddenly of indefinite gastric uneasiness, pain, and vomiting, followed by progressive loss of weight and energy and associated with anæmia, the possibility of cancer of the stomach should be recognised and in a suspected case, if no improvement takes place in a few weeks at most, an exploratory operation is more than justified. As Osler says, the important aid of an exploratory operation should be more frequently advised. Our diagnosis can only be rendered certain by a digital examination, which may be effected through a small incision that can, if needful, be made under cocaine anæsthesia with little if any risk. It may be discovered that the disease is manifestly not malignant and that some curative operation can be done, as in cases I have reported in "Diseases of the Stomach" and in various published lectures. Or it may be discovered that the disease resembles malignancy both in its history and naked-eye appearance, and is yet, if we may judge from results, apparently not malignant, as in a number of cases treated by gastro-enterostomy, that I have reported, which were at the time of operation extremely ill and supposed to be suffering from cancer of the stomach, but who, as the result of surgical treatment, are now in good health.

I would lay particular stress on this class of cases, for I think it serves to explain some misconception about cancer generally. It would be easy to raise a claim to having cured cancer of the stomach by gastro-enterostomy, but I do not for one moment believe that any of these cases were more than inflammatory tumours formed around chronic ulcers; nevertheless, I have no doubt that they would have proved fatal just as certainly as if they had been cancer had no operation been done. Or it may be found that the disease is cancer in an early stage and that a radical removal is possible.

The cases which I have mentioned are sufficient to show that removal at an early stage offers good prospects of immediate recovery and a fair probability of cure and they further show that excision of even a considerable portion of the stomach may be something more than a palliative operation. I think it justifies me in saying that, although it is better to have cancer diagnosed and operated on early, yet we need not take the pessimistic view which has been given by some surgeons that if a tumour be manifest it is too late to perform a radical operation.

Professor Kocher of Berne, one of the distinguished honorary Fellows of the College, has been so kind as to give me the results of his gastrectomies for cancer up to the

[10] THE LANCET, March 12th, 1904 p. 699.

present; the following is the report as sent to me in a letter dated Oct. 14th, 1904. "I have performed 97 resections of the stomach for cancer and sarcoma (one only for sarcoma). Of these, 52 cases (operated on between 1881 and 1898) 65·4 per cent. recovered, 34·6 per cent. died. From 1898 to August, 1904, 45 cases have been operated on with 82·2 per cent. recoveries and 17·7 per cent. deaths. Of these last eight cases which died (i.e., 17·7 per cent.), one died from perforation at the point of union, one from perforation of the transverse colon in consequence of local gangrene, and six cases from pneumonia, whilst locally everything went on in a normal way. Without these cases dying from complications existing, for the most part before operation (bronchitis, &c.) we should have had only 5·1 per cent. of deaths directly from operation. With regard to definite results, 51 of the whole series died later, living up to six years (in the mean 18·7 months), much longer than after gastro-enterostomy and in much better condition. 20 cases are still living, two for several months only, one for ten months, six for one year, one for two years and two months, one for two years and eight months, one for three years and eight months, three for from five to five and a half years, one for six years, one for seven years, one for 11 years, and one for 16½ years. All the patients, except one, of the 20 living are in very good health. Dr. Matti and I have seen most of these cases ourselves and Dr. Matti has examined them carefully as to the functions of the stomach, the others have been examined by their local doctors. We may be sure that a good many of our cases have given a radical cure. All of the cases living except one have been operated on by our method of resection with gastro-duodenostomy. This method, applied in 71 of the cases, has also given the best result as to immediate mortality, that is to say, 16·9 per cent. of deaths and 83·1 per cent. of recoveries." Dr. W. H. Mayo and Dr. C. Mayo[11] have performed 43 radical operations for malignant disease of the stomach with seven deaths—i.e., 16·2 per cent.; all but two of those who recovered lived over a year, one lived three years and seven months, and several are well more than two years after operation. McDonald, quoted by Mayo, was able to collect 43 cases definitely cured by operation. Murphy collected 189 cases with 28 deaths, of which 17 survived over three years. Of the partial gastrectomies performed by myself and Mr. B. G. A. Moynihan before 1897 the mortality was 75 per cent., whereas since 1898 it had only been 12·5 per cent.

Removal of cancer of the tongue.—I remember as a student seeing a number of removals of the tongue by the écraseur, there being no question of removal of the glands or of the floor of the mouth. In nearly every case recurrence took place within a few months and the operation was falling into disfavour when Whitehead invented his operation of removing the tongue widely with scissors and Kocher's operation of clearing out the tongue, floor of the mouth, and the submaxillary and lymphatic glands also came to be practised. These operations brought a marked change and it was soon found that a good percentage of patients operated on remained free from disease for some time and others were really cured. I can point to a case well seven years after operation, to another five years, and to others over three years, and it is of interest to note that in these cases very good power of speech is retained by the patients. My colleague Mr. H. T. Butlin, putting together his own cases and those of Kronlein, Kocher, and Whitehead, found that 40 out of 199 remained free from disease or had died from some other cause than cancer more than three years after the last operation.

Mr. Walter Whitehead has excised the tongue independently of other complications on 50 occasions without a death and in 116 operations the mortality was only 2·5 per cent. He refers to cases living 13, 12, and 11 years after operation and makes the statement that "provided the tongue and adjacent affected parts are removed thoroughly and early there exists a fair prospect of life being extended beyond the three-year limit." Mr. Stanley Boyd, out of 26 cases reported one alive 11 years after operation, one 8½ years, one 5 years, one 4½ years, one 4½ years, one 4 years, and others in which life was prolonged for shorter periods; in over one-fourth of his cases life was prolonged beyond the three-year limit. I have already freely expressed my views on the question of attacking diseases of the tongue in the pre-cancerous stage; if only this were done more frequently and if, even when cancer has developed, time were not lost in dosing patients with iodides week after week until the disease has extended too widely there would be a much brighter tale to tell.

Cancer of the larynx.—What could at first sight appear more hopeless for radical treatment than cancer of the larynx which formerly used only to be treated palliatively by tracheotomy, later was removed by the formidable operation of complete laryngectomy with a very high mortality, and, lastly, has been most successfully dealt with when seen early by the much more simple operation of thyrotomy and removal of the diseased part as advocated by Mr. Butlin in 1889.

My friend, Sir Felix Semon, has been kind enough to give me the statistics of his thyrotomy operations, the results of which are remarkable and which prove up to the hilt the special point which I want to insist on in this lecture, that if we get cancer cases sent to us sufficiently early operation is not merely palliative but curative. Sir Felix Semon says: "I can now summarise my results to the effect that out of 18 cases of undoubted malignant disease of the larynx which I have operated upon by thyrotomy between June 2nd, 1891, and July 29th, 1902, 15—that is, 85 per cent.—were permanently cured. Three of these patients died several years after the operation from affections altogether unconnected with the original disease, one, six years after the operation from an acute abdominal affection; the second, three years and a quarter after the operation from embolism of the heart or lungs; the third, four years after the operation from pneumonia. The remaining 12 are now alive and well; whilst the vocal results, with the exception of a few cases in which it was necessary to remove both vocal cords, are surprisingly good."

My personal experience of the disease in this situation is necessarily small but I venture to relate the following interesting case. Early this summer a man, aged 50 years, from whom I removed a cancer of the tongue five years ago and a cancer of the vocal cord by thyrotomy three years ago, came to see me, and although he had only half a tongue, half an epiglottis, and one vocal cord, he could speak perfectly well. He said that his health was very good and that he was able to carry on his professional work without any disability. Mr. Sheild tells me that he has four cases under observation of epithelioma of the vocal cord freely removed in an early stage by thyrotomy, all in men over 40 years of age; of these one is well six years, one four years, one nearly four years, and one two years later.

Professor Kocher has been kind enough to furnish me with the statistics of his cases that were evidently more extensive and had to be treated by the more formidable operation of partial and complete laryngectomy; of these eight are radically cured. He says: "The number of my excisions of the larynx for malignant growths is 30, of which 29 were for cancer and one for sarcoma. The results are that eight cases offer a radical cure—that is to say, 28·6 per cent. These include the one case of sarcoma. Of six cases of total excision only one survived two years and died from pneumonia. Of nine unilateral excisions (one-half of the larynx) two died without return of the disease after one and a half years; two are living in perfect health after six and eight years respectively. Of ten circumscribed excisions two are still in good health after six and six and a quarter years respectively. Of four cases operated on by pharyngotomie subhyoïdea, two are quite well after 14 months and ten years. Out of the cases where the carcinoma was still circumscribed and no lymphatic glands affected, one-half of all cases have been definitely cured. All depends upon early diagnosis and early surgical aid."

Cancer of the intestine.—Although in this situation cancer is far from uncommon it is only comparatively recently that radical operations have been performed on the intestinal tract at an early stage with a view not simply to relieve but to cure the disease. Intestinal cancer is nearly always in the form of columnar-celled carcinoma, and, as shown by Haussman,[12] even when it has advanced to a fatal issue the disease is limited to the gut in over 40 per cent. of cases. In 112 necropsies the disease had become generalised in 21, had involved the glands in 36, and in 55 was limited to the bowel. I believe that all the cases where the disease is limited ought to be capable of cure by enterectomy if operated on early. It should also be borne in mind that even if enlarged glands be present it does not necessarily mean that they are cancerous, for both clinical and pathological

[11] Medical News, April 16th, 1904.

[12] Thèse de Paris, 1882.

experience has shown the contrary. In some of my own cases enterectomy, despite the presence of enlarged glands, has resulted in cure.

Formerly palliative procedures such as colotomy marked the limits of surgical work and operation was deferred as long as possible for the obvious reason that at best the old procedure of lumbar colotomy was only to be endured as a last resort. Contrary to what used to be thought the intestines present conditions very favourable to curative operations and I think I shall be able to show from my own experience, as well as from the experience of others, that in enterectomy or colectomy performed at an early stage, when the disease is limited to the bowel, we have a most satisfactory operation both as to immediate and ultimate results.

I have performed enterectomy on over 40 occasions; of these 31 have been for growth, of which six died. As to the ultimate issue it is almost impossible to trace the hospital cases, though two were heard of as being well four and a half and two years later. Of 21 operations for tumour done in private there were 17 recoveries. Of these, one is alive and well ten years later after excision of the sigmoid flexure and she has had two children since her operation. One is alive and well four and a half years, three are well three and a half years, two three years, and one one year after operation without sign of recurrence. Others lived, one for three years, three for two years, and five for lesser periods and died from recurrence. It cannot be too strongly insisted on that in all chronic ailments associated with dyspepsia or constipation or abdominal pain a careful examination of the abdomen should be made in order to discover disease at the earliest possible moment, for to wait until obstruction occurs is to lose the favourable opportunity and to add very seriously to the danger of any operation.

In operating I make a very wide sweep of the disease, going several inches beyond the growth above and below and removing the lymphatics and glands belonging to the affected parts of the bowel as far as possible. Personally I prefer to use my decalcified bone bobbins, but I have employed with success the simple suture and the Murphy button, though I still feel that by means of the bobbin used as a temporary splint around which to apply sutures, I can perform a safer operation than by any other method.

The operations performed before the perfection of the technique of intestinal surgery massed together and said to furnish an average mortality of from 30 to 40 per cent. ought not to be taken as an example of what can be done to-day: for instance, Mr. Bilton Pollard published [13] reports of seven colectomies without a death, and of these one patient has lived five years after operation, one is living and well three and a half years after, and two patients are well one year after; recurrence took place one year and nine months after operation in one case, one and a half years after in one case, and one year after in one case.

Professor C. E. Morton employing the decalcified bone bobbin has performed seven consecutive cases of colectomy without a death, and my friend, Mr. H. Littlewood,[14] reported 14 colectomies with 10 recoveries, several of the patients being well three or more years later. Von Mikulicz has written: "In my experience the present results after operations for malignant tumours of the large intestine are very favourable, more so than is generally supposed. I think we should point out this fact to physicians who are still very sceptical about this operation." The conjoint statistics of Mikulicz and Körte show that of 24 cases nine were under observation for four years after operation and some much longer, one 17 years without recurrence.

Cancer of the rectum.—This is a disease that of all others lends itself to a radical cure, for it can be recognised early. It is safe to say now that there is no part of the alimentary canal that cannot be reached for a radical operation, for even in the rectum that part which cannot be reached from the perineum can be got at from above, by opening the abdomen, with the patient in the Trendelenburg position, as was so ably demonstrated by my friend, Sir Charles Ball, from this chair last year; and fortunately there need be no doubt about the nature and extent of the disease in this region, for the electric proctoscope enables the lower bowel to be examined by the eye without difficulty to a height of 30 centimetres.

Among other notable examples of radical cure I can point to one patient living in perfect health and with good control of the bowel from whom I removed a cancer of the rectum by proctectomy 12 years ago, to another eight years, and to others who are well and enjoying life several years after operation. My colleague, Mr. Clinton T. Dent, has recently recorded the case of a patient who died from recurrence in the liver 21 years after removal of a cancer of the rectum.

Delay in recommending operations in these cases is inexcusable, for they are readily recognised and if they could be operated on when the disease is limited to the bowel the success, immediate and remote, would be very considerable. Mr. Harrison Cripps has recorded 38 perineal proctectomies with three deaths, a mortality of 7·8 per cent. Of these two were well from one to three years and seven more than three years after operation. In no case did recurrence take place after three years.

Mr. Percy Furnivall has tabulated Duplay's and Reclus's collected cases as follows:—

4	lived	13, 14, 16, and 16½	years after operation.
3	,,	11	years after operation.
4	,,	8	,, ,,
4	,,	7	,, ,,
6	,,	6	,, ,,
13	,,	5	,, ,,
19	,,	4	,, ,,
15	,,	3	,, ,,

My colleague, Mr. W. Watson Cheyne, says[15]: "I should reckon the mortality of excision of the rectum is from 5 to 10 per c., as the result of recent improvements in the operation. It is a very valuable procedure in suitable cases and the risk run by the patient is not at all excessive, seeing the advantages that may be gained."

Cancer of the gall-bladder and liver.—If the favourable pre-cancerous period has passed and malignant disease has actually supervened, can anything be done for the sufferers? At first sight it would appear that cancer of the gall-bladder is an utterly hopeless disease, especially when it has extended to the liver. Fortunately, however, I am able from my own experience to show that such a view would be a fallacy. I have operated on 12 cases of cancer of the gall-bladder and in 11 the disease extended to the liver, forming a tumour of some size. Of these 12 cases ten recovered from the operation and lived for varying periods. Five of these patients are at the present time alive and in good health at periods of five and a half, five, four and a half, four, and one and a quarter years respectively subsequent to operation.

I want it clearly to be understood that these were cases of primary cancer of the gall-bladder due to the irritation of gall-stones and that the liver growth was due to extension by continuity, not to secondary deposits in that organ. In one case I was able to remove as much as half a pound of the liver with success. Needless to say, it would be much better by removal of the gall-stones at an earlier stage to prevent cancer than to have to perform an extensive operation at a later stage. Now that cholecystectomy is more frequently performed in the case of seriously damaged gall-bladders during the performance of operations for cholelithiasis I expect we shall find that cancer will be more often found at an early stage and successfully taken away.

Cancer of the lip.—Even if the pre-cancerous stage has passed a free removal of the disease at an early stage and while it is still local enables a very good prognosis to be given. Mr. Butlin's analysis of 114 cases of epithelioma of the lip from the Göttingen clinic showed that 53 per cent. of cases were alive and well or had died from other diseases more than three years after removal and of these 12 had lived for at least 12 years and one for 18 years after operation. Dr. Loos analysed the returns of the Tübingen Hospital from 1843 to 1885 and found that the cures averaged 51 per cent., but in the years from 1885 to 1898 they had increased to 66 per cent. Mr. Sheild has told me of one patient from whom he removed an epithelioma of the lip with submental glands 20 years ago. The patient died last year at the age of 81 years without recurrence.

Cancer of the penis.—In epithelioma of the penis it is satisfactory to know that amputation yields a cure of one-third of the cases operated on. Mr. Butlin gives cases under his own observation living and well from six to ten years later, and of some collected cases well for nearly 20 years. Mr. Sheild has told me of four cases of his well after nine, seven, six and a half, and three years respectively, and I can point to one case well after 15 years and to others at lesser periods.

[13] Brit. Med. Jour., Jan. 23rd, 1904, p. 175.
[14] THE LANCET, May 30th, 1903, p. 1511.
[15] Brit. Med. Jour., June 13th, 1903, p. 1361.

Cancer of the uterus.—As cancer of the uterus is one of the most distressing manifestations of malignant disease it is a comfort to know that the pessimistic views advanced by a prominent gynæcologist about three years ago need to be taken with considerable modification. I have already said that much may be done to prevent this dread disease by careful surgical treatment, and that without risk. Even when the pre-cancerous stage is passed, if women could be educated to the fact that were they to seek advice earlier, and in fact whenever an abnormal sanguineous discharge appears apart from a menstrual period, in a very large percentage of cases the cancer would be recognised in its incipient condition when the disease is local, and removal could be carried out and cure effected. In order to prove these statements I wrote to the medical attendants of all the private patients on whom I had operated and was much gratified to find many not only living but in robust health from whom I had removed cancer of the uterus by complete or partial hysterectomy years ago. I made an attempt to get the statistics of my hospital patients but found it absolutely impracticable, as nearly all the letters were returned on account of change of address, so that the statistics are limited to private patients and as these cases were nearly all seen at an early stage of the disease and the growth was examined microscopically after removal I think they form a valuable addition to the statistics of uterine cancer, for every case can be verified. They are 26 in number. 12 were total hysterectomies without a death, of which the following is an analysis:—

1 patient is alive and well			8½	years after operation.
1	,,	,,	7	,, ,,
1	,,	,,	6	,, ,,
2 patients are	,,	,,	5	,, ,,
2	,,	,,	3	,, ,,
1 patient is	,,	,,	1½	,, ,,

From 4 no answers were received.

14 were very free supravaginal amputations of the cervix without a death, of which the following is an analysis:—

1 is alive and well			11½	years after operation.
1	,,	,,	10½	,, ,,
1	,,	,,	10	,, ,,
1	,,	,,	9	,, ,,
1	,,	,,	6	,, ,,

1 lived for 5 years and died from heart disease without recurrence of cancer.

From 2 no answers were received.

1 lived 4 years and recurred.

5 lived 1 year or less and recurrence took place.

Mr. F. B. Jessett has been so good as to furnish me with his statistics. He has performed hysterectomy 180 times with 10 deaths, but of the last 73 cases only one died. Of the first series of 107 cases very many, being hospital cases, were lost sight of, but five are living and well 11, 10, 9, 9, and 8 years respectively. Of the last series of 73 cases 12 are known to be well from two to five years after operation. Professor Olshausen's experience in vaginal hysterectomy extends to 808 cases; up to 1903 he had performed 671 operations, with a mortality of 6 per cent.; since 1903 he had done 137 operations, with a mortality of 4·4 per cent. As to the ultimate issue, 70 per cent. lived for two years without recurrence and 38 per cent. had had no recurrence after five years. The extensive operation involving the removal of the pelvic glands results in a high mortality and it has not yet been shown that a greater number of cases have been radically cured than by the vaginal operation. When once the glands have become infected a radical operation, Professor Olshausen thinks, is impracticable. Professor Wertheimer, who performs an extensive operation, only operates on a small proportion of the patients he sees and his ultimate results are consequently very good, nine out of 14 patients free from disease at the end of four years. Professor Zweifel of Leipsic, of 153 operations for uterine cancer since Jan. 1st, 1897, had 35·6 per cent. of the cases well and free from recurrence after five years. These facts prove beyond a doubt that cancer of the uterus is, like cancer of other organs, a local and a curable disease if diagnosed and removed in its earlier stages.

It seems to me most desirable that some crusade against the neglect of the well-known early symptoms of uterine cancer should be undertaken, and that women should be warned how important it is for them to consult their medical attendants at an early stage, when in case of doubt a small piece of tissue can easily be removed and examined microscopically. It behoves, not only the public, but even the profession itself, to shake off the pessimism that has hitherto prevailed on the subject of cancer and to grasp the facts that by an early diagnosis and a thorough removal cancer is a curable disease in a fair proportion of cases.

PALLIATIVE OPERATIONS.

This, I fear, can at the best form but a melancholy page in my lecture, for over every one of this class of patients can only be written in large letters, Too late! Can surgery, however, do anything for them? I think it can do much, not only to prolong life, but to prolong it in greater comfort. When operations *per se* were attended with a large mortality palliative procedures were, as a rule, indefensible; but now that anæsthesia, asepsis, and improved technique do away with the pain and many of the dangers of operative work there is a large field open to the surgeon to attempt to give relief to those sufferers from malignant disease who have come too late for a radical cure. What can be more distressing than to see a patient slowly starving to death from a cancer of the œsophagus or of the cardiac orifice of the stomach, and yet this is constantly being seen, for there is still an idea abroad that the operation of gastrostomy is a very fatal one and that the condition of the patient subsequently is unsatisfactory.

What is the true state of affairs? My own experience may be divided into two periods, one where the patients were never handed over to the surgeon until nearly moribund, and then the mortality of gastrostomy was probably all round from 70 to 80 per cent., and a later period during which I have personally performed 24 operations with only one death—4·1 per cent. Many of these patients lived for months and some of them for considerably over a year and were able to keep up their nutrition and to follow their work. There is always a possibility in such cases that the obstruction may be simple and that after the parts have been set at rest by the gastrostomy nature may bring about a cure, or that when starvation has been arrested medical treatment, previously futile, may be successfully adopted. In two cases I have seen this to occur, one in a woman, well three years later, and the other in a man who some years after came to see me and showed me the dimple in the skin through which he said that he occasionally passed a catheter so as to keep the opening patent in case he ever needed it again. What the obstruction had been was a mystery, for at the time of operating the symptoms and physical signs distinctly pointed to cancer and for six months he lived on food introduced through the gastrostomy opening. In cancer too extensive for removal, where the pylorus is stenosed, a gastro-enterostomy often gives the patient the greatest relief, as I can prove by a large number of patients now living in comfort.

I was astonished some time ago to read a statement made by an eminent surgeon that as the relief after gastro-enterostomy for cancer was so short-lived it was not worth doing. Did time permit I could give examples of patients living in ease and comfort for many months and in several cases for over a year after operation, the vomiting and pain which were persistent before, having entirely disappeared and the other symptoms having improved so much that the question of a mistaken diagnosis arose in several cases.

It must not be lost sight of that in some cases of chronic ulcer a large tumour forms and simulates cancer so closely that even when the abdomen is opened the difference cannot be made out. This experience has happened in my practice on several occasions, the first being in the case of a medical man who was worn out with pain and vomiting of coffee-ground material and was in the last stage of exhaustion. On opening his abdomen to remove the tumour that I thought was cancer I found the swelling so extensive and the glands to be so markedly involved that I simply performed a gastro-enterostomy with the result that nearly seven years later he is in excellent health and carrying on his practice as usual. This is not a solitary case for I have had several quite as startling and a number of these patients are at the present time living and well. In one case of cancer of the stomach too ill to bear gastrectomy a gastro-enterostomy gave so much relief that in six weeks the patient was in a condition to bear the major operation, from which he recovered, and when heard of a year later he was well.

When gastro-enterostomy involved a great risk to life such operations could not be strongly urged but after a personal experience of over 200 cases of posterior gastro-enterostomy with only a 3·6 per cent. mortality I have no hesitation in

advising this very beneficent and efficient operation as a means of relief. Even if the whole stomach be involved so that a gastro-enterostomy is impracticable, the jejunum may be brought to the surface and through this the patient may be nourished, as in gastrostomy. Eight months ago I operated on a woman who was vomiting several times a day, the vomit being mixed with blood. Her pain was very great every time food entered the stomach, which was forming a perceptible tumour, and she was rapidly going downhill. On opening the abdomen there was no part of the stomach free from disease; a gastro-enterostomy was therefore impracticable and a loop of the jejunum was brought to the surface and a catheter was fixed in. The patient was immediately fed and within a few days was taking milk very freely. She rapidly put on flesh and returned home in a fortnight. I hear that she is still living in comfort and that she can now take a little food by the mouth. She has lost her pain and vomiting and the tumour has diminished, though I fear there can be no doubt about its cancerous nature. In gastric cancer, therefore, at every stage surgery offers the possibility of cure by removal if caught early and of great relief if only seen too late for a radical operation.

I have spoken at some length concerning the radical cure of cancer of the intestine by enterectomy when seen in time, but in some cases the disease has advanced too far for complete removal. In such cases the stricture may be short-circuited and set at rest, an operation which not only retards the growth but prevents obstruction that would be certain to supervene. In one case of this kind in an old man, aged 65 years, in whom I found a growth in the ascending colon which I could not remove, I connected the ileum to the sigmoid flexure. He returned home and was able without pain or suffering to carry on his business for nearly three years. Similar short-circuitings of the intestine I have performed on numerous occasions by means of my decalcified bone bobbins with the greatest comfort to the patients and prolongation of life for long periods in many. Where the obstruction is low down in the bowel and irremoveable, as in the lowest part of the sigmoid flexure or upper part of the rectum, the operation of colotomy may prove of the greatest comfort and prolong life for a long period; in one case of this kind under my care the patient lived for nearly five years and I heard lately of an aged patient living six years after colotomy for cancer of the rectum, though this is unusual.

But there is another point that must not be lost sight of in these cases, for just as I said that the rest induced by a gastro-enterostomy might bring about a cure of a gastric tumour which at the time appeared to be cancer but which was really inflammatory thickening around chronic ulcer, so we may have in the rectum and sigmoid flexure a tumour formed slowly by inflammation, which in mode of growth, in feel through the abdominal wall, in appearance when exposed, in involvement of glands, and in its effect on the lumen of the bowel, presents all the appearances of cancer and which may entirely subside after a colotomy that gives rest to the inflamed part. This I have seen to happen on three occasions and in two patients I was able after a year to close the colotomy opening.

In cancer of the pancreas compressing the bile-ducts, although unable to remove the disease, we can short-circuit the gall-bladder into the intestine or drain the gall-bladder on to the surface and so relieve the jaundice. Now, although when the disease is really cancer of the pancreas the relief is only for a short time—a few months at the outside—yet there are certain cases of inflammatory swelling of the pancreas producing all the symptoms of cancer which at one time used to die unrelieved under the idea that the disease was malignant. After operating on several of these cases and finding the patients whom I expected only to relieve ultimately to get quite well, it was my good fortune to recognise the condition of chronic pancreatitis. This has proved of great clinical value, for whereas in cancer of the pancreas a fatal termination occurs within a few months, in chronic pancreatitis and in pancreatic catarrh the results of treatment are most successful and in an experience of over 50 cases 95 per cent. have recovered, and in nearly all the cases perfect health has been regained.

The spontaneous retrocession of apparently malignant tumours after mere exploratory operations must not be lost sight of when considering the advisability of palliative procedures. Some of the cases of the kind that I have seen I will not pretend to explain but will briefly mention. About 12 years ago I explored a tumour of the gall-bladder and liver, hoping to find gall-stones in the centre of an inflamed mass. On exposure of the growth I found it nodular and hard and to be involving the liver, gall-bladder, omentum, stomach, and colon; a hollow needle introduced in various directions showed it to be like cartilage in hardness and no fluid could be obtained. The abdomen was closed and an unfavourable prognosis given but the patient is to-day alive and well and from the time of operation never had any further trouble. In a case of ascites associated with growths in the pelvis and throughout the abdomen a small exploratory incision was followed by the complete and perfect recovery of the patient, who was well some years subsequently. In the case of a middle-aged man with a tumour in the gall-bladder region which on exposure was found to be associated with what appeared to be secondary growths throughout the liver, the mere exploration was followed by recovery and restoration of health and the patient was well a year subsequently. In a large stomach tumour in an old man with extensive involvement of glands and apparently a hopeless state of affairs an examination was followed by rapid disappearance of the growth and restoration to health.

I could give other examples, both from my own and from the experience of others, where the physical signs and clinical symptoms gave every appearance of malignancy but where recovery has followed on exploration. Many such cases have been reported, so that the spontaneous cure of cancer in some peculiar circumstances appears to be within the realm of possibility. A collection of such cases and an attempt to find some condition common to them all would form an interesting subject of research.

It now only remains for me to thank you for the patient hearing you have given to my imperfect treatment of a large subject and to apologise for my shortcomings. My purpose will have been served if I have been able in however small a degree to convince those who have the chance of seeing patients in the early stages of their illness that in many cases cancer can be prevented by treatment in the pre-cancerous stage; that even when cancer has developed if it be seen early and thoroughly removed it is frequently a curable disease; and, lastly, that even in the later stages much may be done by surgical treatment to give real relief.

Is it too much to hope that some of the views I have enunciated may filter through the profession to the public and serve to convince them that until a true prophylactic for cancer is discovered they will be consulting their own interests best by seeking medical advice earlier, since to trifle with their ailments in the early stages is to lose the favourable moment and ultimately to hear the verdict, alas, too often pronounced, Too late.

ABSTRACT OF

The Bowman Lecture

ON

THE PROGRESSIVE EVOLUTION OF THE VISUAL CORTEX IN MAMMALIA.

Delivered before the Ophthalmological Society of the United Kingdom on Nov. 4th, 1904,

BY F. W. MOTT, M.D. LOND., F.R.S.,

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BY means of an elaborate and profoundly scientific investigation, carried out both in comparative anatomy and embryology, Dr. Mott demonstrated the correlation of structure and function in the neuro-visual apparatus as exhibited in a progressive complexity of cell-lamination in the visual cortex of mammalia from the insectivora to primates. The more the animal depends on vision as a directive faculty in self-preservation the more complex becomes its structure. The transition from monocular panoramic to perfect binocular stereoscopic vision shows successive variation and increase in the number of direct fibres until in the primates there is semi-decussation, correlated with progressive development in the layer of higher associational pyramidal cells lying above the layer of granules in the cortex. The various stages of evolution were illustrated by actual preparations of the visual cortex

in different species of animals, two types being shown in the accompanying illustration. (*Vide* Fig. 1.)

1. In the mole and the shrew, which exhibit the most rudimentary visual apparatus commensurate with their extremely limited powers of vision, the cell structure of the cortex consists almost entirely of small stellate or quadrilateral cells, resembling granules, below which is a thin layer of polymorph cells with sparse large cells. These three types of cells are found throughout the series, but in varying proportion. In the hedgehog, a nocturnal insectivorous animal, the cells are more complex in structure, but the type of cell-lamination is quite simple, the principal directive faculty in this animal being smell.

2. In rodents the eyes are set laterally, vision being panoramic and very extensive in range, but permitting little elaboration, and associations are very elementary. Corresponding with this, the visual cortex is rather more complex, and in the rabbit large stellate cells and branching pyramidal cells closely packed together in a thin layer lie above the granules, the former being, according to Cajal, the visuo-sensory cells. In the animals of this series practically all the optic fibres decussate at the chiasma and there is panoramic or periscopic monocular vision, characterised by extensive range but imperfect perception of depth, relief, or solidarity, a condition especially met with in herbivorous and fructivorous animals.

3. Among marsupials, the wallaby, a herbivorous animal, presents an imperfectly developed pyramidal layer in the visual cortex, while the dasyure, a cat-like carnivore, is found to have a well-defined layer of pyramids above the granules.

4. The ungulates, of which the camel and mule-deer were examined, have a panoramic vision, chiefly monocular, and relatively few direct fibres in the chiasma, with an extensive area of visual cortex. Cell-lamination is similar to that in Group 2, consisting of a deep polymorph layer, numerous solitary cells of Meynert, a layer of large and small stellate cells, and above these an ill-developed pyramidal layer, the line of Gennari, however, being well-marked. (*Vide* Fig. 1.)

5. Among carnivores, canines, with eyes widely set, possessing panoramic and binocular vision with incomplete optic decussation, have an extensive area of visual cortex and in addition to the cell layers previously mentioned a fair depth of small and medium-sized pyramids and a distinct line of Gennari. These animals seize their prey with their teeth, involving, as in the greyhound, a rapid correlation of the visual and motor faculties. Felidæ, possessing binocular stereoscopic vision with which they direct the paw with the greatest accuracy, thereby acquire numerous and varied associations between tactile-motor and visual sensori-motor impressions. Corresponding with this the pyramidal area was found to be of increased depth, the solitary cells of Meynert very numerous, and the polymorph layer diminished as compared with the foregoing species. The pyramidal tract in the cervical region of the cord, representing the volitional path of the executive faculty, is probably better developed in the cat than in the dog, and very much better in this species than in any of the lower ones described. The cats are probably the first species in the series of mammals in which section of the optic tract produces hemianopsy and which are capable of full convergent stereoscopic vision—that is, movement of the eye independent of the head. An animal with panoramic vision increases the range by movements of the head rather than of the eyes. Though the cat with its ocular convergence probably possesses an area centralis of most distinct vision no true macula lutea is found below the primates. In the chameleon Cajal showed the existence of a similar combination of a more highly developed retinal central area with power of convergence of the visual axes, in conformity with unerring accuracy in seizing its prey by propulsion of the tongue.

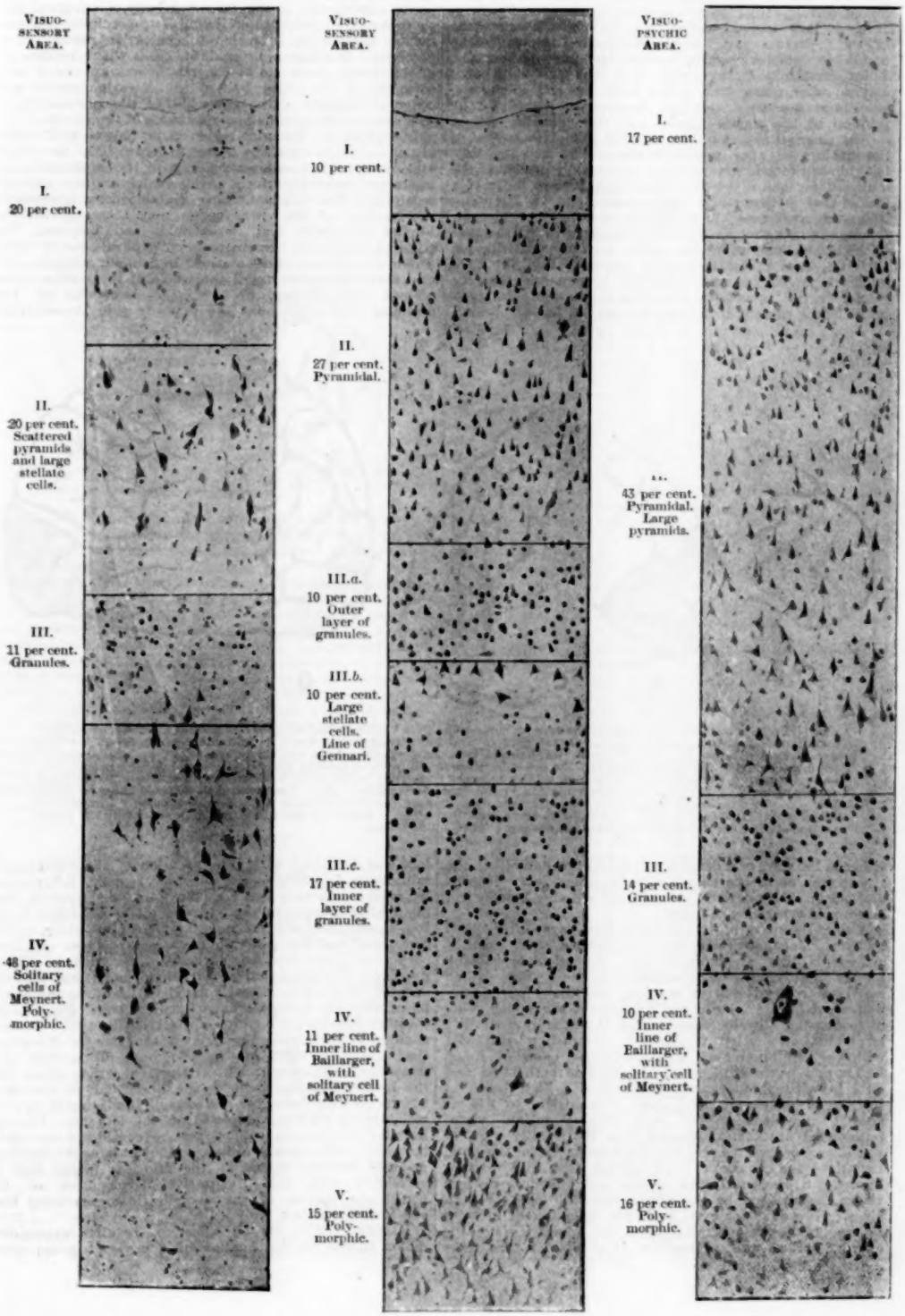
6. Primates having perfect binocular stereoscopic, with only a remnant of monocular panoramic, vision, and the ability to extend the visual range by movements of the eyes, either with or without associated movements of the head and neck, exhibit semi-decussation of the optic fibres, the presence of a distinct macula lutea, and the existence of a definite occipital lobe, with a line of Gennari visible to the naked eye. The cortex presents two structurally distinct regions: (*a*) visuo-sensory, attaining its maximum extent and complexity in the ape and characterised by increase of width of the line of Gennari, a double layer of granules and above the outer of these a double layer of small and medium sized pyramids; and (*b*) visuo-psychic or associational (not definite as a distinct zone below the ape), characterised by an increased depth of the pyramidal layer owing to the presence of a third row of large associational pyramids, this region being progressive in extent upwards to man, in whom it attains its maximum development at a period subsequent to birth, being therefore both phylogenetically and ontogenetically the latest outcome of development. (*Vide* Figs. 1 and 2.)

Observations on the visual cortex of mammals tend to show a parallel between the progressive development of the pyramidal layer and the evolution of binocular vision. The cells of this layer are small and medium-sized in the striate area and are association neurons phylogenetically of later development. They are also, as Bolton has shown, later ontogenetically, for whereas the polymorph layer has attained about its full depth at birth the pyramidal layer is not more than half grown. It is probable that this more superficial layer does not become functional till some time after birth. Flechsig has shown that the optic radial fibres are only myelinated at birth as far as their first bifurcation and are demonstrable as such only as far as the second lowest layer of the cortex. Since myelination indicates preparedness for function, then the seat of primary cortical visual activity must be situated in these lowest layers which are present in all (even the lowest) mammals. The horizontal fibres, especially of the line of Gennari, are still completely non-myelinated at birth. Flechsig distinguishes three sets of fibres in the primary optic radiations—sensory and motor, myelinated at birth, and associational, in which myelination occurs later. The striate area, the primary seat of vision where the optic radiations terminate, does not occupy the whole surface of the occipital lobe in the anthropoid apes or man. It is limited in man and to a less degree in anthropoid apes to the mesial surface and especially to that part which forms the lips, floor, and walls of the calcarine fissure. The superficial extent, however, is not relatively less in proportion to the retina, being made up by the development of convolutions. As in the course of evolution the parietal lobe and its occipital annectants increased more rapidly than the occipital lobe itself they tended to push back and to enfold the smooth striate surface of the latter, diminishing its superficial area to make room for a phylogenetically new cortex which was distinguished from the old by the absence of the line of Gennari, the fusion of two granule layers into a single one, and the appearance of a layer of large pyramids, making three rows of pyramids in this region (*vide* Fig. 2). This is called by Bolton the visuo-psychic area and has been mapped out by Campbell as occupying the remainder of the occipital lobe. The latter has shown by histological examination, as Flechsig had previously shown by the myelination method, that every primordial sensory sphere is surrounded by a zone which might be termed intermedial. The primary sensori-motor spheres are situated round the primary fissures, central, Sylvian, and calcarine, and the adjacent intermedial regions are characterised by later myelination and the presence of large pyramidal cells and fibres. A progressive increase in these zones occurs in the ascending zoological scale, but in man the great increase of cerebral cortex, particularly in the parietal, temporal, and frontal lobes, is due even more to the development of a cortex which is latest myelinated—namely, the terminal areas of Flechsig—in which fine fibres alone occur with complete absence of large pyramids.

The significance of this extraordinary cortical expansion in man is indicated by the corresponding development of the mental faculties in which macular vision plays such an important part. It has long been considered that a large frontal development indicates a high order of intelligence and this is one of the striking points of difference between the brain of man and that of the anthropoid ape. There is much greater development, however, in the parietal lobe, which partly gained its predominance by pushing backwards so as to encroach upon the territory formerly occupied by the occipital. This parietal enlargement is indeed a leading human character and has been specially observed in the brains of notably intellectual men, distinguished by genius and constructive imagination. The occipital lobe in man presents four annectant gyri, two with the parietal and two with the temporal lobes; the latter exist in all primates, small in the lower apes, large in the anthropoids, larger still and more sinuous in man. They form the

FIG. 1.

Reproduction of drawings after photo-micrographs of sections of the visual cortex in the mule-deer and of the visuo-sensory and visuo-psychic cortex in the monkey (macacus). Magnification 150. The percentage of thickness of the different layers is only approximate.



anatomical substratum of the association of hearing and vision.

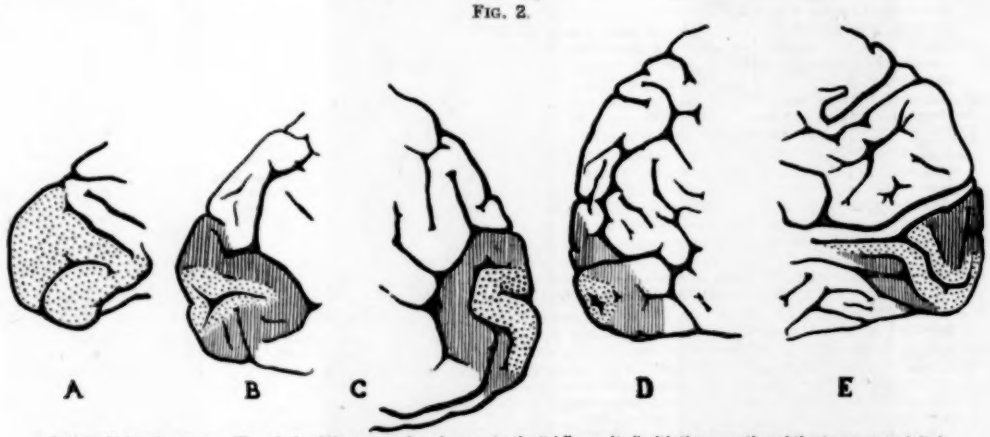
The difference, then, between the anthropoid brain and the human is not so much in the occipital lobe as in the parietal, for in the anthropoid brain is a well-developed region corresponding to the intermedial zone of Flechsig. It is in the parietal region that the great development of the posterior part of the brain has occurred—the region in which Flechsig locates the concept centres. Elliot Smith has also shown that the cortex in man may, in some races, such as the Fellaheen and Soudanese, sometimes possess anatomical features in regard to the position of the striate region and the calcarine fissure on the *external* aspect of the occipital lobe akin to that of the anthropoid apes, especially the gorilla, and Dr. Mott has himself found this condition occasionally present in the brains of persons dying in the asylums, also in those of a Chinese, of a Goanese, a Congo negro, and an Egyptian. These are represented in a diagram showing the calcarine fissure extending for a considerable distance round the pole of the hemisphere, where the striate area has a distribution similar to that in the anthropoid ape (*vide* Fig. 2). Eliot Smith is probably correct, therefore, in assuming that the "Affenspalte" is not the exclusive property of the ape's brain but is present in a large number of human brains, either in the form of a definite sulcus lunatus, delimiting the striate area, or as the sulcus lateralis, which is the lunatus displaced; all gradations between the extreme human and anthropoid types may be found.

A dog deprived of its eyeballs two days after birth by von Monakow was able to behave some months afterwards like an ordinary dog, its orientation being perfect and contrasting markedly with a dog which had both cortical spheres removed and in which orientation was defective. Peripheral blindness in the human being is accompanied by increased tactile kinæsthetic sensibility by which orientation is effected, contrasting markedly with cortical blindness. The remarkable cases of Helen Keller and Laura Bridgeman, who became both blind and deaf in early infancy and yet attained a high degree of intelligence and were able, apart from vision, to live as normal individuals, show that sensory retinal visual impressions are but a part, and that the smaller part, of visual perceptions. As regards the termination of the optic radiations von Monakow is of opinion that the macular impressions concerned with central and therefore distinct vision are received by the whole occipital lobes of both sides. He would not even limit the reception of macular impressions to the occipital lobes but would include the angular gyri as well. Henschen is of opinion that there is a cortical retina and that this is the area bounding the calcarine fissure and its lips; moreover, that the lower half of this calcarine region corresponds with the lower quadrants of the homonymous halves of the two retinæ and the upper to the upper. Further, that a definite portion of the calcarine cortex corresponds to the macula, rightly pointing out that there is no recorded case of lesion of the occipital lobe producing hemianopsy in which the calcarine region is uninvolved. In addition, he produced cases where hemianopsy of the lower quadrants of the retinæ was associated with softening of the lower half of the calcarine region, and others of softening of the upper half of the calcarine region with hemianopsy of the upper quadrants of the retinæ.

Instead of the calcarine region being located as the half-vision centre it would be better to locate it in the striate area owing to its possible variations in its extension on the mesial and external surfaces. This explains a case recently recorded by Beevor and Collier. Notable cases illustrating the function of the visual cortex were those described by Förster and Sachs and by Schmidt and Laqueur. The patients had double hemianopsy but retained central vision. There was also loss of orientation. In Schmidt and Laqueur's case there was softening of the whole of the striate region on one side, leaving, however, the remainder of this occipital lobe intact. On the opposite side the occipital lobe was destroyed with the exception of about 200 square millimetres in the posterior calcarine region. Edinger has recorded a case in which complete blindness resulted from bilateral destruction of the occipital lobes. It might therefore be asserted that the retention of central vision in the cases cited was due either to the intact posterior calcarine cortex or, if von Monakow's view was accepted, to all the remaining intact occipital cortex. Bernheimer found that the macular fibres were intimately mingled with others and distributed widely in the external geniculate body, presumably, therefore, having no definite cortical localisation. Clinico-anatomical facts, therefore, support the view of Henschen that the upper right quadrants of both retinæ were projected on to the upper half of the right striate cortex and the lower right quadrants to the lower half of the right striate cortex; the upper and lower left quadrants of both retinæ being similarly projected on the left side. Cortical macular localisation cannot yet be considered as satisfactorily determined, although the progressive development of macular vision in the primates might well be correlated with the progressive development of the non-striate portion of the occipital lobe, favouring thus von Monakow's view.

Macular vision, to be effective, requires appropriate motor adaptation for fixation of the visual axes; there

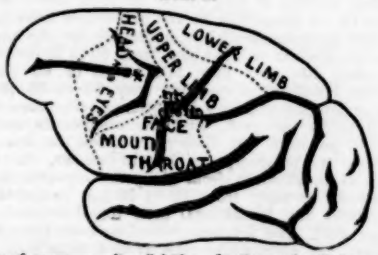
FIG. 2.



A, Occipital lobe of macacus. The whole of the external surface up to the "Affenspalte," with the exception of the temporo-occipital annectant, possesses a striate cortex (indicated by dots) and its anterior portion forms an operculum which covers over the associational visuo-psychic zone, which is therefore not seen. B, Occipital lobe of anthropoid ape, after Campbell. Owing to the development of the parietal lobe and the associational zone indicated by shading the striate cortex has been pushed back and enfolded. C, Occipital lobe of a human subject in which the striate cortex extends for three centimetres on the external surface, resembling thus the anthropoid ape. D, Striate surface extending a short distance around the pole of the occipital lobe. E, Mesial surface of the occipital lobe, after Campbell, showing the distribution of the striate visuo-sensory area and the circumjacent visuo-psychic zone. It will be observed that the anterior portion of the striate region occupies only the lower portion of the stem of the calcarine fissure as was first pointed out by Bolton.

are, however, two pairs of cortical regions which control movements of the head and eyes—occipital and frontal—the former, representing Hughlings Jackson's middle level, form the *second reflex circle*, the first and lowest circle being the retinal light reflex through the corpora quadrigemina, unconscious and involuntary, whereas the second reflex circle by way of the occipital lobes controlling such movements as blinking the eye (without thought or attention upon the sudden approach of an object) is a visual reflex, but of an inferior order, not implying mental representation, yet only occurring in response to visual sensations. The *third reflex circle*, corresponding to Hughlings Jackson's highest level or Munk's acquired visual reflexes, involves reflection and attention. The excitation of the visual cortex extends to part or all of the circumjacent visual association zone from which it can spread to all parts of the visual cortex, the lines along which it would spread depending upon fusion with past experiences

FIG. 3.

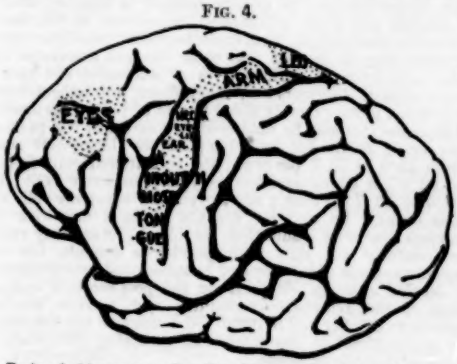


Brain of macacus, after Schäfer. In the angle of the precentral sulcus marked thus * stimulation produces lateral movements of the head and eyes.

in associative memory. The corollary to this is that the visual directive faculty must progress coincidently with this circumjacent zone by virtue of the increased possibilities of associative memory.

Among about 30 cases of bilateral hemianopsy that have been recorded no disturbance of voluntary eye movements has been observed. This can be explained by the fact that experiment has demonstrated the existence of a centre for eye movements in each frontal lobe, just in front of the precental sulcus in apes, in which stimulation of this region induces associated movements of the head and neck. The region which upon excitation produces movements of the eyes in the anthropoid apes occupies an area of considerable extent in the forepart of the external surface of the frontal lobe, separated by an inexcitable zone from that which gives rise to head and neck movements and opening and closing of the eyes. (Beevor and Horsley, Sherrington and Grünbaum, *vide* Fig. 4.) Presumably the

FIG. 4.



Brain of chimpanzee, after Sherrington. Showing an inexcitable area between a region which on stimulation yields eye movements and another region which yields neck movements and opening and closing of eyes.

same thing obtained in man and probably the same cause which has led to the pushing back of the striate area of the occipital lobe already described has brought about this change in the frontal lobe. It was coincident with the more complete dissociation of the fore limbs from progression and the attainment of the erect posture. All parts of the cortex which have motor functions are also sensory. It has been shown in apes that excitation of the frontal eye-centres produced movements of the eyes when the occipital lobes had been separated, and Munk has shown that an animal which had long suffered from cortical blindness from ablation of the occipital lobes still yielded the same movements on excitation of the frontal eye-centres. It might therefore be presumed that these centres could act independently of vision, the sensory innervation being through the fifth nerve and the upper sensory branches of the cervical plexus. There is, however, considerable evidence to show that the frontal lobe is concerned with the maintenance of gait and station, through its connexion by afferent and efferent paths traversing the thalamus and red nucleus to the opposite lateral lobe of the cerebellum. This is supported by the fact that ataxy is one of the most characteristic signs of large tumours involving the frontal lobes. There is evidence likewise to show that a large bundle of association fibres passes from the occipital to the frontal lobe, the superior longitudinal bundle, which arises most probably from the large pyramidal cells of the third layer of the association zone. Might not therefore this area (marked * in Fig. 3) shown in the anthropoid apes to be inexcitable, consist of a zone of cortex serving for the fusion of visual perceptions, subconscious equipoisal sensations, and tactile kinæsthetic impressions coming from the head, neck, trunk, and especially the lower limbs? For as the erect posture was fully evolved the motor adaptations necessary for gait and station became more complex and vision as a directive faculty played a more important part. Not that the whole of the association fibres which pass from the occipital to the frontal lobe are concerned with this function in the anthropoid ape, a large number probably subserve the association of the eye and hand. Should therefore this associational zone of the occipital lobe, which increased *pari passu* with the attainment of the erect posture, be destroyed loss of orientation would follow, for visual impressions could no longer be associated with the impressions of motor adaptation involved in gait and station; and memory pictures, which are really revivals of past experiences of associated memory, would also be wiped out.

One of the most interesting observations in the study of published cases of bilateral hemianopsy is the frequent occurrence of this loss of memory pictures and of orientation. Förster's case illustrates this but the loss did not appear to be proportionate to the visual defect, for in Grönouw's case the loss of orientation was as profound, though the visual defect was very much less. Schmidt and Laqueur's patient was able to read well, to write fairly, and to converse rationally, but he was unable to find his way to his own house, the bed in his room, or the chair he was about to sit on. Instances have been recorded in which hemianopsy was unattended with loss of memory pictures, and one has been cited by Charcot exhibiting loss of optic memory pictures without hemianopsy. These two functions would therefore appear to have a different location. Instances of hemianopsy, with visual hallucinations of the affected side, also indicate that memory pictures are formed in some region other than the striate cortex. As, however, hemianopsy and loss of picture memory are frequently combined, localisation of the two functions is probably in adjacent areas. All these facts taken in conjunction with the fact that homonymous visual defects have been proved to result from disease and destruction of the striate cortex lead to the inference that disturbances of orientation are due to lesion of the remainder of the occipital cortex containing the large pyramids. Again, in all cases in which continuous disturbance of orientation and memory pictures existed lesions have been found in both occipital lobes; while in those cases of disturbance of orientation in which there was unilateral hemianopsy there were bilateral lesions of the occipital lobes, but the striate cortex was only destroyed on one side. By virtue of the callosal commissural connexions the two occipital lobes habitually act together, therefore destruction of one lobe produces no loss of orientation. There may be all grades of this affection, commencing with the simple difficulty of interpreting retinal pictures and associating them with acquired experiences, and the disturbance may extend to a complete loss of the faculty

of identifying the common objects of daily life; such disturbances may exist in spite of good visual acuity and the retention of stereognostic sense. Such a loss of function is due to destruction of this later phylogenetically and ontogenetically acquired cortex—a cortex which progressively increases in the primates as we ascend the scale. Moreover, the large cells and fibres which characterise this cortex are especially large in the *human* brain, not that variation occurs with the actual size of the brain, but as a provision for progressive increase of points of contact with the growth of associative memory.

Dr. Mott, in conclusion, alluded to the valuable aid he had received from the works of Dr. J. S. Bolton and Dr. A. Campbell on the Structure of the Visual Cortex and especially to the practical aid of his assistant, Dr. G. Watson, whose extensive observations on the mammalian cortex (as yet unpublished) show the layer of pyramidal cells to be concerned with higher association memory and educability. Concerning this view Dr. Mott stated that he had endeavoured to show that a most important factor in educability is a storage capacity in association memory of the combinations of stereoscopic visual images with varied complex and refined tactile motor experiences. He also alluded to the important observations of Sherrington on binocular flicker, which indicated that the essential cause of the direct path of the optic fibres and binocular vision is more perfect motor association and adaptation.

[The complete lecture, with further illustrations, will be published in the Transactions of the Ophthalmological Society and vol. iii., *Archives of Neurology*.]

A Clinical Lecture

ON THE

RELATIONSHIP OF "SPLENIC ANÆMIA OF INFANCY" TO OTHER FORMS OF BLOOD DISEASES OCCURRING IN INFANCY AND CHILDHOOD.

Delivered at University College Hospital on August 29th, 1904,

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GENTLEMEN,—During a recent demonstration in one of the wards of the hospital of a case of an infant suffering from anæmia with enlargement of the spleen the question was raised: "What is *the* difference between splenic anæmia and leucocythæmia when either disease occurs in an infant?" In the present state of confusion which exists as to the relationship between the various blood diseases of children, and, it may be said, of adults too, such a question is one which probes to the very centre the recognised methods of classification and in exposing the unsatisfactory means of separation at present adopted shows the need for a generalisation which will remove this confusion. Fortunately, as a result of the more extended pathological investigations of various forms of blood diseases (in directions not restricted merely to an examination of the blood picture) which have recently been carried out such generalisation is already possible. Before attempting to answer the question raised it is necessary first of all to discuss certain general matters.

THE BLOOD IN HEALTHY INFANTS (ANY AGE UP TO TWO YEARS) AND CHILDREN (AGED FROM TWO YEARS TO PUBERTY).

From the twelfth to the eighteenth day after birth the red corpuscles (erythrocytes) number from 5,000,000 to 6,000,000 per cubic millimetre; nucleated red corpuscles (normoblasts) are present for a time but soon disappear entirely; their presence in the blood after six months of age may be considered pathological. At the sixth year the erythrocytes number 4,950,000 per cubic millimetre and from this date onward gradually approximate to the figures reached in adult age—viz., 5,000,000 in the male and 4,500,000 in the female. For a few days after birth there is inequality in the size of the red corpuscles (anisocytosis) but this disappears entirely. At birth the hæmoglobin amounts to 100 or 104 per cent.; this amount progressively falls to the third week, when it reaches 55 or 60 per cent.; after this date it steadily rises till adult age is reached, when it usually amounts to so much as to produce a colour index $\left\{\frac{\text{Percentage of hæmoglobin}}{\text{Percentage number of red corpuscles}}\right\}$ of from 0·95 to 1·05 in men and from 0·9 to 1·0 in women. At birth the leucocytes number from 18,000 to 30,000 per cubic millimetre; after the first feeding they may number 36,000; by the twelfth or eighteenth day after birth the numbers fall to 17,000 or 12,000; at the sixth month 14,000 or 12,000; by the end of the first year 10,000; at the sixth year 7500 or even 9000 to 10,000; from this date they gradually approach the average of adult blood counts—viz., from 5000 to 10,000 with an average of 7500. A total of 30,000 leucocytes in a healthy child under three years of age after feeding is said to be far from rare. Extensive analyses of the leucocytes at the above ages have not been made but up to the twelfth or eighteenth day the number of polymorphonuclear cells is about from 60 to 70 per cent.; in later infant life they may fall to 23 or 40 per cent., the small lymphocytes reaching from 50 to 75 per cent., the large lymphocytes and transitional cells taken together from 6 to 14 per cent., and the eosinophile cells from 0·5 to 10 per cent. At three years of age the mononuclear cells equal the polymorphonuclear in number. In the adult as well as in children from six years onwards the small lymphocytes number from 20 to 30 per cent., the large lymphocytes and transitional cells together reach from 4 to 8 per cent., the polymorphonuclear cells from 60 to 75 per cent., the eosinophile cells from 0·5 to 5 or even 11 per cent., and the basophiles in adults from 0·5 to 2 per cent. Myelocytes and basophile cells are not usually present in the blood of healthy infants and children; myelocytes do not occur in healthy adults.

Anatomy of the hæmopoietic organs.—Up to the sixteenth year in health the cavities of all bones contain red marrow in varying proportions mixed with fat. Erythroblasts in the case of a healthy infant are generally confined to lymphoid marrow but groups of nucleated red cells are frequently found in the liver and spleen.

THE BLOOD IN THE SEVERE SECONDARY ANÆMIAS OF INFANCY AND CHILDHOOD.

Infants and children are liable to suffer from what are known as secondary anæmias—i.e., anæmia dependent upon various diseases, most common amongst which are congenital syphilis, rickets, and gastro-intestinal disorders. Such anæmia may be mild and be associated with very slight alterations in the blood or severe when marked changes are visible in the blood and the spleen may become enlarged.

1. When congenital syphilis produces severe anæmia the red corpuscles may be greatly reduced in number, even to 1,000,000 per cubic millimetre. Alteration in the colour (polychromatophilia), form (poikilocytosis), and size (anisocytosis) may be present, and these changes associated with the occurrence of various sizes of nucleated red cells or erythroblasts (normoblasts, microblasts, and megaloblasts) produce a picture closely allied to that of pernicious anæmia. The leucocytes may be unaltered in number or rise to 58,000 per cubic millimetre, the lymphocytes (large and small) from 15·9 to 33·7 per cent., the transitional cells from 22 to 52·9 per cent., and the polymorphonuclear cells from 26·4 to 58·7 per cent.; myelocytes and basophile cells may also occur. So extreme are the changes met with that various observers admit that the blood picture may readily be confused not only with pernicious anæmia but with splenic anæmia of infancy and lymphocytic leucocythæmia.

Morbid anatomy.—Reports on the post-mortem examination of the lymphatic structures and marrow are very scanty in number and in detail; the marrow has been found to be lymphoid in character—i.e., partaking of the appearance of lymphatic tissue.

2. The severe secondary anæmia produced by rickets may show a fall of the erythrocytes to 750,000 or even 500,000 per cubic millimetre. The leucocytes do not usually exceed 30,000 per cubic millimetre, but all grades of increase of leucocytes have been found up to that met with in leucocythæmia. Analysis of leucocytes is not fully reported but in 20 rickety infants the lymphocytes numbered 43 per cent., the eosinophiles about 3 per cent., though the latter have been noticed to reach 16

or even 20 per cent.; myelocytes may occur as well as large numbers of nucleated red cells. The alterations in the red corpuscles in shape, form, &c., are not of such a character as to lead to confusion with the blood pictures of pernicious anæmia, but there is considerable likeness to the picture of the blood in splenic anæmia in infants and to leucocythæmia.

Morbid anatomy.—It is well known that there is fibrous hyperplasia of the spleen and lymphatic glands in rickets but observations on the marrow are very incomplete.

3. Gastro-enteritis may cause a fall of red corpuscles to 685,000 and the white corpuscles may number 38,000 per cubic millimetre. Under one year, in one series of cases, the average number of leucocytes was 13,500, the polymorphonuclear cells numbering 42 per cent. As a rule the lymphocytes predominate over all other cells, even to the extent of 70 per cent., so that this disorder may simulate lymphocytic leucocythæmia. The occurrence of myelocytes and erythroblasts is not reported.

Morbid anatomy.—Extended reports on the marrow, spleen, and lymphatic tissue are not available.

THE BLOOD IN CASES OF PRIMARY ANÆMIAS OF INFANCY AND CHILDHOOD.

The primary anæmias include leucocythæmia, pernicious anæmia, and splenic anæmia of infancy.

1. Leucocythæmia in infants and children may produce a fall of red corpuscles to 1,308,000 per cubic millimetre and a reduction of hæmoglobin to 40 or even 25 per cent. Normoblasts and megaloblasts may be found in the lymphocytic form and a great excess of normoblasts (7800 per cubic millimetre) as well as of megaloblasts may be found in the myelocytic form. The leucocytes increase in number to 986,000 in the myelocytic or spleno-medullary form and to 420,000 in the lymphocytic variety; they may, however, not number more than 48,000, or even 24,000 in myelocytic, or 87,000 in lymphocytic leucocythæmia. The total lymphocytes, including large and small varieties, may reach 94 or 99 per cent. in the lymphocytic form, and from 5 per cent. to 31·5 or 39 per cent. in the myelocytic variety; the polymorphonuclear cells vary from 0·7 to 5 per cent. in the lymphocytic and from 12·3 to 29·7 per cent. in the myelocytic form. Eosinophiles may be absent in the lymphocytic form or only reach 1 per cent; in the myelocytic form from 0·6 to 5 per cent. is recorded. Myelocytes are usually absent in the lymphocytic form; in the myelocytic variety they number from 20·8 to 79·1 per cent.

Morbid anatomy.—In lymphocytic leucocythæmia the marrow shows an enormous number of lymphocytes of both sizes, large and small, but granulocytes (polymorphonuclear cells, neutrophile and oxyphile myelocytes, and other basophile, amphophile, and oxyphile cells) may occur in small numbers as well as considerable numbers of erythroblasts and erythrocytes (non-nucleated red cells); the spleen and lymphatic glands also show lymphocytes in great numbers, especially large ones; polymorphonuclear cells, basophile cells, and erythrocytes are occasionally seen, but myelocytes and eosinophile cells are not encountered except in the spleen where eosinophiles may occur. In myelocytic leucocythæmia fat may disappear entirely from the marrow of the long bones; erythroblasts and eosinophile cells are scanty; most of the cells present are lymphocytes or myelocytes; the spleen may show a large increase of the myelocytes and lymphocytes and a few eosinophiles may be present; deposits of lymphocytes are a familiar picture in the liver and kidneys; the lymphatic glands may show very little change. Cases are on record in which cellular changes are found in the marrow alone, the spleen and lymphatic glands being normal; the marrow in these cases contained large numbers of lymphocytes and a less number of myelocytes.

2. Pernicious anæmia in infants and children may show a fall of red cells to 500,000 per cubic millimetre. The hæmoglobin may reach from 25 to 30 per cent., or even fall to 12 per cent.; poikilocytosis, anisocytosis, and polychromatophilia are marked; normoblasts, megalocytes, and megaloblasts occur in large numbers, the last exceeding the number of the normoblasts. The leucocytes usually are normal in number or somewhat reduced to 4000 or 8000; a relative increase of lymphocytes may occur with reduction of polymorphonuclear cells and a few myelocytes sometimes appear. As in the adult, however, leucocytosis may occur, 19,000 leucocytes per cubic millimetre having been observed, with an increase in the percentage of lymphocytes. It has been noticed in the pernicious anæmia of infancy and childhood that megalocytes and megaloblasts, which form so characteristic a feature in the disease of adults, may fail to appear and the colour index may not be so high. Enlargement of the spleen has been observed in some cases and this together with a leucocytosis and relative lymphocytosis has led to the confusion of this disease with leucocythæmia and to the attempt to separate another type of blood disease, leucanæmia (leucocythæmia and anæmia). The absence of megalocytes and megaloblasts has led to confusion with "splenic anæmia of infancy" and reference has already been made to the confusion of this disease with the severe secondary anæmia produced by congenital syphilis.

Morbid anatomy.—Post mortem, iron has been found in various viscera; there is also hyperplasia of the fibrous tissue of the spleen and the bone marrow becomes "asplenified"—i.e., it has returned to its embryonic state. Enlargement of the lymphatic glands may occur as well, but they appear to present no special microscopic features.

3. Splenic anæmia of infancy is also known as "anæmia pseudo-leukæmica infantum" and some observers are inclined to look upon Banti's disease as an exaggerated form of this disorder, presenting ascites and cirrhosis of the liver. Splenic anæmia of infancy differs from splenic anæmia of the adult mainly in the fact that the latter is not accompanied by anything like the same changes in the blood picture. Splenic anæmia of infancy shows marked changes in the blood. Fowler has reported a series of 20 cases; the red corpuscles varied from 5,800,000 to 1,146,000 (820,000, von Jaksch), the white corpuscles from 5800 to 45,000 (114,150, Baginsky), and the hæmoglobin from 70 to 18 per cent.; the ratio of white to red cells was from 1 to 51 to 1 to 475; the lymphocytes average 59·1 per cent. (extremes 70·2 and 38 per cent.), the polymorphonuclear cells 36 per cent. (extremes 59 and 25·5 per cent.), and the eosinophiles 1·2 per cent. and the myelocytes 2·8 per cent. with extremes of 0·2 and 10 per cent.; nucleated red cells were present varying from a few to 2770 per cubic millimetre. Poikilocytosis and anisocytosis have been observed; also polychromatophilia; normoblasts were more numerous than micro- and megalo-blasts. This disorder may present a blood picture very like that of pernicious anæmia, severe secondary anæmia with leucocytosis, some forms of Hodgkin's disease and lymphocytic and myelocytic leucocythæmia. It is now well known that leucocythæmia both in the young and in adult life may show aleukæmic features at intervals and the only test of the leucocythæmic character of the disease is the presence of a variable amount of lymphocytosis or myelocytosis. Hence the confusion of cases of splenic anæmia of infancy with leucocythæmia is very great—healthy infants and infants presenting anæmia show lymphocytosis and infants suffering from any form of severe anæmia may show myelocytes in the blood. An arbitrary limit has been set up by some in order to separate cases of splenic anæmia of infancy from leucocythæmia—those cases with not more than 10 per cent. of myelocytes per cubic millimetre are called cases of splenic anæmia of infancy and those with over 10 per cent. leucocythæmia.

The *morbid anatomy* of cases of splenic anæmia of infancy does not throw much light on the nature of the disease, so far as a very limited inquiry has been carried out. Numerous eosinophiles or myelocytes have been found in the spleen with an increase of the fibrous tissue; the liver may be normal; in one unsatisfactory examination of the marrow nothing abnormal was found. The lymphatic glands show an increase of fibrous tissue and Warthin has noticed the development of hæmolymph nodes closely resembling lymphatic tissue in the mesenteric fat. In one case the bone marrow of the long bones was red and the fatty tissue of the marrow was not so extensive as in older subjects: its place was taken by large neutrophilic myelocytes, small lymphocytes, eosinophiles, polymorphonuclear cells, and erythroblasts.

The infant seen in the ward presents the following features. He is 13 months old and has a pale, waxy complexion; signs of rickets are very marked, the more obvious ones being Parrot's nodes, beading of the ribs, and enlargement of the ends of the long bones. The bowels are inclined to be constipated and the motions are offensive. The liver is a little enlarged and the spleen, which varies in size from time to time, almost reaches the os pubis; the lymphatic glands are also slightly enlarged, especially the inguinal ones. The child has lost flesh but is not very wasted. The temperature is often normal but occasionally

there is a rise of two or three degrees. Cough has been noticed and sometimes is accompanied by a blood-stained discharge from the nose. The course of the disease is chronic; syphilis has been excluded.

The two blood examinations show 3,944,000 and 2,036,000 erythrocytes and 21,818 and 23,454 leucocytes per cubic millimetre. Poikilocytosis, vacuolation, and polychromatophilia are present and macrocytes and normoblasts are seen, about 1200 of the latter per cubic millimetre. The colour index is 0·41. The polymorphonuclear cells number 43·3 per cent.; small lymphocytes, 49·6 per cent.; large lymphocytes, 4·6 per cent.; eosinophiles, 0·35 per cent.; basophiles, 0·35 per cent.; and myelocytes, 1·8 per cent.

CONCLUSION.

The above brief survey of the blood picture and of the anatomy of the hæmopoietic organs in healthy infants and children in the severe secondary anæmias and in the primary anæmias of infancy and childhood shows that there is no sharp line of demarcation between any of the groups which have been dignified by special names. Each disorder shows varying degrees of development of the various characteristics of blood disorder—alterations in number, size, and morphological characters of red cells, leucocytosis affecting various leucoblasts, loss of hæmoglobin, enlargement of the spleen, &c.

Unfortunately we are not yet in such full possession of the exact pathological condition of the spleen, lymphatic glands, and marrow in all these disorders to be able to connote, except in the case of leucocythæmia, any particular blood picture with corresponding pathological changes in the marrow, spleen, and lymphatic tissues. Clinical evidence fails to separate these maladies and the same may be said of the blood pictures except in the cases of extreme forms of pernicious anæmia and leucocythæmia; between these two there are many transitional types.

Evidence is fast accumulating which tends to show the importance of a closer study of lymphoid tissues throughout the body and more especially of the characters of the cellular elements lying within the reticulum of each tissue. Recent investigations seem to point to the conclusion that in leucocythæmia the marrow is involved in every case whether the leucocythæmia is lymphocytic, myelocytic, or of a mixed type and shows an overgrowth or hyperplasia of the lymphoid cells which normally occur there: as the result of a process allied to the one described by Virchow as metaplasia these formative or mother cells are now believed to develop into the non-granular lymphocytes, into granulocytes of all kinds, or into both non-granular and granular cells. The spleen and lymphatic glands may or may not share in this change; as already stated in recently reported cases, the marrow alone has been found to be affected. In other cases (pernicious anæmia) the lymphoid cells appear to give rise, again by metaplasia, to various forms of erythroblasts and erythrocytes. What is the nature of the particular agents which provoke the hyperplasia is not yet known, nor is it yet quite understood why the hyperplasia is apparently so much more readily excited in the young than in adults; why, for example, in the adult there may be an enlargement of the spleen (splenomegaly) without profound changes in the blood, whereas in the infant with enlargement of the spleen there are severe anæmia, leucoblastic development, and erythroblastic change, a picture which if not identical with that met with in leucocythæmia closely approaches it.

It is more in harmony with recent investigations to insist upon the close relationship of all blood diseases—anæmias, primary and secondary, and leucocythæmias—rather than to attempt to separate them at the bed-side as sharply defined groups. The contradictory statements regarding the nature of the malady in the infant just examined—one physician affirming that it is a case of "splenic anæmia of infancy" and another that it is a case of "lymphocytic leucocythæmia"—will then be seen to be due to the inherent difficulties of the subject arising from the scantiness of our knowledge of the functions of lymphoid tissue throughout the body. Making use of a 10 per cent. myelocytic limit the former diagnosis would be the correct one, but for want of a pathological support for this arbitary separation of two different degrees of reaction on the part of the blood-forming tissues in the shape of a definite constant change in the bone marrow, spleen, and lymphatic tissues it is quite justifiable to hesitate to call the disease by any special name and to look upon the case as one in which probably the formative lymphoid cells of the body have undergone changes which have produced a blood picture having the characters of both leucocythæmia and pernicious anæmia. Pathological considerations do not at present justify the recognition as separate diseases of what are really merely different degrees of reaction of the blood-forming tissues to various excitants the nature of which at present is obscure. Nor do the results of treatment or the course of these diseases, except in those cases resulting from curable causes like syphilis, justify us in separating them; the prognosis is sombre in all cases of primary blood disease—less so in some than others; the only remedy which has really much to be said in its favour is arsenic—a drug which is reputed to act both in pernicious anæmia and in leucocythæmia, but as you are well aware even this remedy fails eventually in both diseases. To sum up it may be said that this infant is suffering from a disordered function of the blood-forming or hæmopoietic tissues and that the blood examination reveals features which in part are known to exist in healthy children, but which also are met with in cases which at present we call pernicious anæmia and leucocythæmia.

A CASE OF NEURO-FIBROMATOSIS, SARCOMA, AND DEATH.

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THE following case is recorded as one of neuro-fibromatosis but it will be seen that it was not recognised as such. It was, however, a typical case, and as Mr. H. Alexis Thomson has shown in his admirable monograph on "Neuroma and Neuro-fibromatosis" that the disease is, both in its clinical and pathological bearing, very important, I think it may be published now. I am indebted to Mr. J. Rutherford Morison, under whose care the patient was, for permission to publish these notes and drawings, both of which were made by me prior to the operation; they are here given without alteration or comment. I may add that on making inquiry about the patient's progress his brother told me that he had died from "a chest complaint" in March, 1899—i.e., five months after the operation; that he had no hæmoptysis but became gradually thinner for many weeks before he died. His medical attendant has also died so that there is little likelihood of knowing more precisely what was the exact cause of death.

The patient was a man, aged 50 years. He was admitted to hospital on Oct. 18th, 1898, suffering from molluscum fibrosum undergoing malignant change. With regard to his previous health he had had scarlet fever about ten years previously, otherwise he always enjoyed good health. His family history was as follows. His mother died, aged 71 years, from "general break up of constitution." His father was killed by accident, aged 62 years. One brother and two sisters died from consumption. Six brothers were living, all strong and healthy. His maternal relatives were consumptive. His present condition (Oct. 18th) was as follows. He was dark-complexioned, with brown eyes and black hair. There were innumerable small cutaneous tumours varying in size from that of a lentil to that of a filbert. The face had the appearance of one covered with small-pox scars which were undergoing keloid change. The greater number of these tumours were subcutaneous but there were many which were pedunculated. In addition to these isolated tumours there were many places where the whole subcutaneous tissue was thickened as if by localised œdema but these areas did not pit on pressure. The right cheek had one of these areas and the right arm was for the most part covered by similar thickened subcutaneous tissue. At the outer side of the right elbow there was a large pendulous growth of the size of a child's head (Fig. 1). This growth had always been the largest of all but lately (during the past few months) it had grown much larger, heavier, and firmer. It was now smooth, oval, elastic, and firm. The whole skin of the body, limbs, and face was remarkably elastic and could be lifted from the subjacent fasciæ to three or four times the distance allowed in a normal person (Fig. 2). The veins of the right arm were remarkably

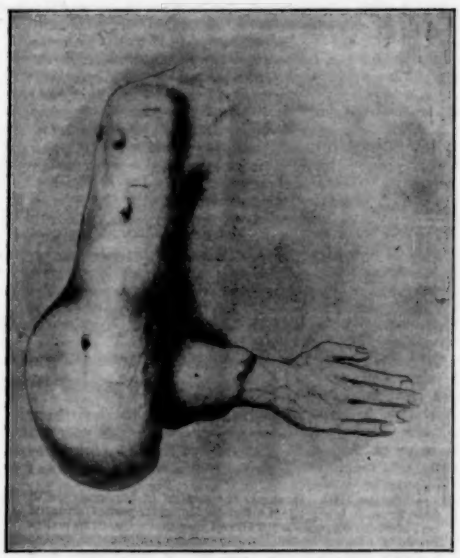
large and there was very abundant dark hair growing on all the areas of the arm and forearm which were affected as above. The patient had had this peculiar condition of the skin all his life but he thought that the face was a little more affected now than 30 years ago. There was no history of any similar thing amongst his relatives. His mother had what he understood to be a bony lump above the right eyebrow and one of his brothers had a similar lump above his right eyebrow.

Operation was performed on Oct. 19th. An oval incision was carried round the base of the tumour of the right elbow. On drawing the tumour away from the arm there was a comparatively well-marked pedicle formed by thickened elastic cutaneous structures. The tumour was easily removed and had no deep connexions but the veins were enormous—one was as large as the vena cava. All the veins had remarkably thick walls. The veins and also the arteries were ligatured as they were found to be very friable. No drainage-tube was employed. Catgut sutures, corrosive gauze dressing, and wood wool were used. The patient wore a splint, with the arm straight from the shoulder to the fingers.

On bisection the tumour was yellow, breaking down in parts, and looked like a rapidly growing sarcoma. There was a thick and firm capsule (one-eight of an inch thick) which completely inclosed the tumour. Surrounding the tumour (which was seven inches long by four and a half inches thick) were the thickened subcutaneous tissue and skin. The subcutaneous tissue appeared on section like very dense, almost transparent, œdematous cellular tissue but it did not pit on pressure. The tumour was not growing from any nerve so far as could be seen, and it was not merely projecting into the subcutaneous tissue but was growing in it, being completely surrounded by it. The patient went home on Nov. 2nd with the wound healed.

Two small pieces of tissue—one from the tumour and one from the surrounding skin—were submitted to independent microscopic examination, no history being given. 1. The following is the report on the section of the tumour:

FIG. 1.



The tumour pendulous. The enormous size of the veins of the forearm is noticeable.

"The growth is a sarcoma composed of small spindle-shaped cells and traversed by a few large thin-walled vessels." 2. The following is the report on the piece of skin: "This section shows a dense but richly nucleated fibrous growth in the corium. It surrounds the cutaneous glands and hair follicles with the bundles of unstriped muscle. The tissue is traversed by numerous vessels which possess well-formed walls and there is no reason for regarding it as malignant."

FIG. 2.

The tumour drawn aside to show the elbow.

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A CASE OF PERFORATED GASTRIC ULCER SUCCESSFULLY TREATED BY OPERATION 52 HOURS AFTER THE PERFORATION TOOK PLACE.

BY T. JASON WOOD, M.D. LOND.,
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THE patient was a man, aged 25 years, whom I saw in consultation with Mr. J. R. McGee. His previous history was as follows. He had had good health as a rule. On April 30th he had a fainting attack when at a theatre which he attributed to the hot atmosphere and smoke. For four days after this the stools contained altered blood and he continued up to the present time to suffer more or less from indigestion. His present illness commenced on August 3rd. After a fairly hearty midday dinner, consisting of fish, &c., the patient was seized with severe abdominal pain while lying in his garden, which moderated after a few minutes but quickly returned again. The pain was not referred to any special part of the abdomen nor was there tenderness on pressure over any part. There was no distension of the abdomen. He lay in bed with the legs extended. There was no indication of collapse. The pulse was full and slow. Hot fomentations and a chlorodyne mixture were ordered. At 9 P.M. he was much more comfortable, though the medicine had been vomited each time it was given. The temperature was 100° F. and the pulse was quiet. On the 4th he had passed a quiet night and had had some sleep. He took an aperient of sulphate of magnesium which was retained but did not move the bowels. He complained now of pain in the back going up to the nape of the neck.

The abdominal pain was less severe. On the 5th he had passed a restless night and had vomited. The face was sallow and the eyes were sunken in appearance. There were now marked swelling and rigidity of the abdominal wall, particularly in the upper part. The patient did not consider himself seriously ill and had been able to read the newspaper with interest. I saw him at about 11 A.M.; his appearance was as above. The abdomen was distended moderately and did not move well with respiration but there were very little tenderness and no specially tender spot. The intestinal coils were not visible. The percussion note was tympanitic and the liver dulness was absent. Rectal examination revealed an ill-defined resistance in front of the bowel and pressure on this place caused a good deal of pain. The temperature was 101° and the pulse was 96 and regular. A diagnosis was made of peritonitis, the result of perforation of a hollow viscus (probably the stomach).

Operation was performed at 5 P.M., 52 hours after perforation, Mr. F. W. Rawson, who had seen the case in consultation, kindly assisting. Chloroform and ether mixture was administered by Mr. McGee. The peritoneal cavity was opened above the umbilicus and free gas at once escaped. The distended and inflamed intestines made manipulation rather difficult and it was a little time before the perforation was found near the pylorus. It was a small aperture of the size of a No. 7 catheter but was surrounded by a considerable extent of indurated tissue. The part of the stomach involved was bound down by adhesions and was at a considerable depth from the surface. It was very difficult to put stitches in position with a view of closing the perforation and they at once cut out when tightened so no prolonged attempt at suture was made. The region of the ulcer was packed with cyanide gauze which was brought up to the surface through a rubber tube. There was a large amount of purulent fluid all over the peritoneal cavity and it formed a considerable collection in the pelvis. A small incision was made above the pubes and another in the right loin. Tubes were passed through these openings and the peritoneal cavity was washed out with a large quantity of hot saline solution. The wound was closed with mass sutures of silkworm gut. The patient made a good recovery though the temperature did not reach the normal level till the fourteenth day, which led us to fear that there might be some pocket of pus still remaining. I saw him at the end of October looking well and quite free from indigestion.

The case is of interest from the length of time that elapsed between the perforation and operation. The peritonitis was quite general but the virulence of the infection must have been rather low. It also shows that if efficient drainage be provided it is by no means necessary to make a watertight closure in a case of perforated ulcer.

Bradford, Yorks.

NOTES ON A FEW CASES OF TRYPANOSOMIASIS IN MAN.

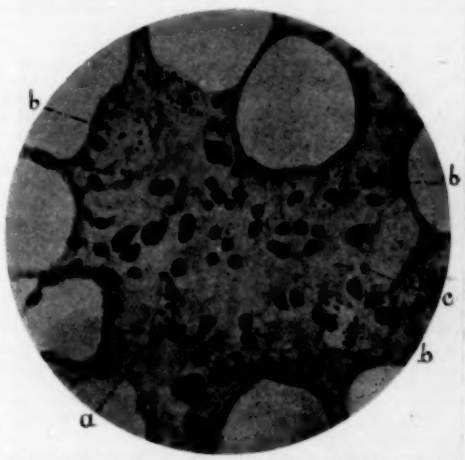
By G. C. CHATTERJEE,

ASSISTANT BACTERIOLOGIST, MEDICAL COLLEGE, CALCUTTA.

OF the cases which are the subject of this paper one was observed so far back as 1894 by Major F. J. Drury, I.M.S., while professor of pathology in the Calcutta Medical College. The sections of the liver of this case showed peculiar bodies which attracted his attention but the nature of which was not determined till the appearance of a paper on tropical sore by Wright[1] in December, 1903, in which sections were shown containing numerous parasitic bodies inside the cells indistinguishable from those seen in the section of the liver, and of the paper on the Leishman-Donovan body by Manson and Low[2] in January, 1904. Since then several cases came under observation in which the Leishman-Donovan bodies were found by spleen puncture during life and in two of which post-mortem examination of the organs showed the parasites. In 12 of the cases the parasites contained in the blood obtained by spleen puncture were cultivated after the method of Captain L. Rogers, I.M.S.,[3] results of which will be communicated later. The following are the short notes of the cases.

CASE 1.—The patient, a Hindoo male, aged 20 years, was admitted into the Calcutta Medical College Hospital on August 10th, 1894, for remittent fever and enteritis. The fever was of continued type and the temperature varied from 100° to 103° F. He had diarrhœa and passed six or seven watery stools during the 24 hours. The liver was enlarged and was half an inch below the costal arch. The spleen reached below the umbilicus. The condition of the patient was very bad. He died on the third day of admission. Post-mortem examination showed that the liver was dark in colour, the lobules being distinctly darker in the centre than the periphery. The spleen was firm in consistence and weighed one pound six ounces. The small intestine was congested throughout. The mucous membrane of the large intestine was swollen and injected and ulcerated. Section of the liver showed clumps of peculiar bodies inside the liver cells which took the hæmatoxylin stain readily. Their number, uniform size, and staining characters attracted the attention of Major Drury but their true nature was not then determined. They were afterwards made out to be Leishman-Donovan bodies as stated before. Their appearance was like those seen inside the cells of the bone marrow of the next case shown in the accompanying diagram.

CASE 2.—The patient, a Hindoo male, aged 30 years, was admitted into the Calcutta Medical College Hospital on Jan. 26th, 1904. The fever was of the continued type, the temperature varying from 100° to 102° F. A few rhonchi were heard in front of the chest. He was also suffering from dysentery. The liver was not enlarged. The spleen reached down to the umbilicus. He died on Feb. 1st. The post-mortem examination showed that the liver was normal in size but distinctly fatty. The spleen was large, dark grey in colour, and flabby; numerous adhesions were found on section. The spleen substance was soft and of a dark colour. The brain was markedly pigmented over the membranes covering the medulla and pons. There was no pigmentation in the substance of the brain. The marrow of the tibia was dark red in colour, firm in consistence, and did not feel greasy. Sections of certain organs were examined under the microscope. In the liver there was marked



Magnification 1200. It shows the section of bone marrow of Case 2. *b*, *b*, *b* are the Leishman-Donovan bodies situated inside white corpuscles; *a* shows Leishman-Donovan bodies inside a non-nucleated faintly stained elongated body; *c* shows free parasites. The section was stained with thionin blue and eosin.

fatty degeneration of the liver cells; they also contained a good deal of pigment particles; besides these there were present inside the cells clumps of Leishman-Donovan bodies. No free parasites were found. In the spleen there was a good deal of pigmentation, the pigment being in large clumps and black in colour. Outside the

[1] Wright: Protozoa in a Case of Tropical Ulcer (Delhi Sore), Journal of Medical Research, vol. x., No. 3 (new series vol. v., No. 3), December, 1903.

[2] Manson and Low: The Leishman-Donovan Body and Tropical Splenomegaly, Brit. Med. Jour., Jan. 23rd, 1904.

[3] THE LANCET, August 27th, 1904, p. 614.

cells numerous Leishman-Donovan bodies were found in large branching vacuolated cells (the macrophages). No free parasites could be distinctly made out. The bone marrow (of the tibia) showed the greatest number of the parasites (see the accompanying diagram); in fact, it was studded with them. On account of the comparative absence of the cellular elements the arrangement and position of parasites could be clearly made out. They were situated mostly in the intervening spaces between two fat cells. They were found in clumps which were of elongated shape. These clumps were made out on closer inspection to be situated inside a faintly stained area and were elongated in shape and apparently possessed no nucleus. The nature of these faintly stained bodies in which the parasites were found was difficult to make out; they were evidently not leucocytes or red corpuscles. Similar bodies (but containing a nucleus) have been found by Christophers[4] in sections of liver of a Leishman-Donovan case. These suggested to him the appearance of an amœba. The parasites were also found in mononuclear leucocytes. Besides several unmistakable free ones were found in the section of the bone marrow. Sections of the brain, intestine, and kidney failed to show any Leishman-Donovan body, though carefully looked for.

CASE 3.—The patient, a Hindoo male, aged 26 years, was admitted into the Calcutta Medical College Hospital for malaria cachexia and broncho-pneumonia on July 31st, 1904. He suffered from intermittent fever for one month nine months previously. The fever used to come on with ague. For the last three months he had suffered from slight fever in the afternoon, accompanied with cough. At the time of admission he had general anasarca and was markedly anæmic. The spleen was two fingers' breadth below the costal arch. Both bases of the lungs were slightly dull on percussion. The skin was slightly pigmented. The patient died from general anasarca on August 8th. Smear preparations from the spleen showed numerous Leishman-Donovan bodies, so also did smear preparations from the bone marrow and the liver. None were found in the smears from the intestine, the mesenteric glands, the lungs, and the brain. Sections of the organs (spleen, liver, and bone marrow) did not show so many parasites as in Case 2 (probably on account of the decomposing state of organs when removed) but they were found in all the three organs.

It is to be noted that the sections were stained for the presence of Leishman-Donovan bodies by the following method. The tissue was imbedded quickly in paraffin and the sections were mounted on slides by floating on hot water. The paraffin was dissolved by xylol, then alcohol was added, then stained with carbol-thionin for one hour, and then washed in water. After being dehydrated by means of blotting paper xylol was poured over the sections till cleared and then mounted. I tried the method of Christophers published in a recent number of "Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India" and of Leishman (by adding fresh blood serum) but the methods are not so uniformly successful as in the above method.

CASE 4.—The patient, a Hindoo male, aged 40 years, gave a history that three of his family had died from fever with enlargement of the spleen (diagnosed as kala-azar). He had been suffering from fever for six months. There was daily exacerbation of fever twice during the 24 hours. The spleen was below the costal arch. The patient was anæmic. A blood count gave the following results: red corpuscles, 2,500,000 per cubic millimetre; white corpuscles, 1500 per cubic millimetre; and hæmoglobin 55 per cent. Smear preparations of the blood obtained by spleen puncture showed no Leishman-Donovan bodies. The blood was incubated after the method of Captain Rogers; on the third day a few Leishman-Donovan bodies were found. (This case, as also the following one, was kindly allowed to be published by Dr. Sundari Mohon Dass, under whose care the patient was.)

CASE 5.—The patient was a boy, aged eight years, who had been suffering from continued fever for three months. The spleen was two inches below the umbilicus. The spleen punctures showed numerous Leishman-Donovan bodies. The parasites were cultivated, the result of which will be communicated later.

CASE 6.—The patient, a Mahomedan, aged 40 years, was admitted into the Albert Victor Hospital, complaining of having suffered from fever for the last five months along with troublesome cough. The spleen was enlarged down to the umbilicus. There was some suspected right apical mischief (though no tubercle bacilli were found in the sputum). Spleen puncture showed numerous Leishman-Donovan bodies. A week later the spleen was punctured for the second time but very few parasites were found. A week later another puncture was made but no parasites were found.

CASE 7.—The patient, a Mahomedan, aged 30 years, had suffered from slight fever in the afternoon for over a year. The spleen reached to the left iliac fossa. A smear from the spleen blood (obtained by spleen puncture) showed numerous parasites.

CASE 8.—The patient, a girl, aged nine years, a Hindoo, had suffered from enlarged spleen and slight fever for over a year. Spleen puncture showed numerous parasites, while another girl, aged nine years, with a spleen larger than that of the patient in this case and suffering from slight fever for three months, showed numerous crescents and no Leishman-Donovan bodies.

CASE 9.—The patient, a boy, aged 16 years, had suffered from continued fever for eight months. At first he used to have ague every day. The spleen was enlarged below the umbilicus. The spleen blood showed numerous Leishman-Donovan bodies.

In bringing the paper to a conclusion I beg to offer my best thanks to Major Drury and to Captain Rogers of Calcutta Medical College.

Calcutta.

[4] Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India, No. 8, 1904, A Preliminary Report on a Parasite found in Persons Suffering from Enlargement of the Spleen in India, by Lieutenant S. R. Christophers.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A NOTE ON A CASE OF SMALL-POX.

BY J. F. HODGSON, M.D. VICT., D.P.H.,
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THE following interesting case of small-pox in a child came under observation in the Halifax Small-pox Hospital.

The mother sickened on Oct. 27th, 1904, and the eruption of small-pox appeared on the 31st. She was admitted to the hospital on Nov. 1st and on the 4th after a normal labour she gave birth to a full-time child at 1 A.M., 12 hours afterwards the eruption, which up to this time had been of the moderately severe discrete type, became complicated by sub- and peri-vesicular hæmorrhages. Hæmaturia was first noticed on the 2nd. She died during the evening of the 4th. Although she was stated to have been successfully vaccinated in infancy there was no evidence of vaccination scars.

The child was vaccinated on the same day and on the 7th it was seen that all the four insertions had been successful. On the next day the entire skin was covered with a scarlatiniform rash and the small-pox eruption made its appearance during the evening. Fresh papules continued to come out during the next two days, so that by the 10th the whole body was abundantly and uniformly covered with them. No change was noticed in the papules until the 12th and then not more than half a dozen situated about the head had developed into vesicles, while by the 14th certainly not more than one-sixth of all the papules had become vesicular. The rest seemed to undergo no change. Up to this point the temperature had never been high; it reached 100·6° F. on the evening of the 11th and was normal afterwards. During the morning of the 14th the child had severe convulsions and later in the day blood was passed with the stools. The vesicles now became purple and the areolæ deep red in colour and death took place at 10.30 A.M. on the 15th. The scarlatiniform rash persisted to the end. The vaccination followed a normal course until the thirteenth day, when the vesicles coalesced, began to extend, and showed no tendency to evolution.

The eruption appeared on the child four days after birth—that is, eight days after the appearance of the eruption on the mother and 12 days after the mother began to sicken.

As the interval between infection and the appearance of the rash in small-pox is generally 12 days the child was doubtless infected in utero and at the time when the mother was yet in the incubation stage. The time was too short for the immunity, which the mother's attack of small-pox is thought to confer on the child, to have been secured. The variola was also so far advanced that the vaccinia could not prevent but only modify and stay its progress. The termination showed that the type of the disease was a severe one, yet the vaccination undoubtedly held it in check for a period.

Halifax.

AN EXAMPLE OF ACCESSORY PANCREAS.

BY G. GREY TURNER, F.R.C.S. ENG.

I RECENTLY found this anomaly in the course of a post-mortem examination on a female, 15 years of age. Death followed an operation for lumbar abscess due to tuberculous disease of the spine. On the wall of the jejunum about 12 inches from its origin there was a small yellowish mass that might have easily been overlooked. Closer examination showed that the nodule was situated in the convexity of the gut exactly opposite the mesenteric attachment. It was roughly circular in outline, eight millimetres in diameter, and three millimetres thick. The surface was lobulated and was but slightly elevated under the peritoneum covering it. On opening the gut the mass was found to project to a greater extent under the mucous membrane than it did externally. Over its centre there was a well-marked ridge about three-quarters of an inch long running in the axis of the bowel and surmounted by a papilla more definite than that at the opening of the common duct into the duodenum. Leading from the gland there was a duct opening on the side of the ridge, not on the papilla. The cut surface of the gland had the appearance of normal pancreas, the lobules being very distinct. Microscopically, it exhibited the structure of normal pancreatic gland substance with well-developed ducts, but without cell islets. The lobules were loosely arranged, but there was no increase of interlobular tissue. The gland lay between a layer of normal mucous membrane on the one hand and of plain muscle on the other, suggesting that it had originated in the submucous tissues. There was no diverticulum in the bowel and the greater pancreas showed no abnormality.

The presence of an accessory pancreas is very well recognised and many cases are on record but it is certainly uncommon. Beyond their embryological interest these "rests" are significant, for they may sometimes be the starting point of tumours in unusual situations. Mr. A. W. Mayo Robson and others give many references but with the exception of a case quoted by Dr. B. C. Stevens[1] I have not noticed one lately in which details were given and on this ground the present case may be worth recording.

Newcastle-on-Tyne.

SPINAL CATHETERISATION IN A CASE OF OBSTRUCTED LABOUR FROM CONGENITAL HYDROCEPHALUS.

BY WALTER ALLINGHAM, M.R.C.S. ENG., L.R.C.P. LOND.

AN account of the following somewhat unusual method of effecting delivery may prove of interest.

The patient was a multipara, aged 40 years. Her previous pregnancies had been 12 in number, four of them terminating in miscarriages, three in the premature birth of hydrocephalic monsters, and the remaining five being normal. On the present occasion she was nine months pregnant and latterly had suffered with very considerable dropsy. When called to see her I was informed that she had been in severe labour for over 48 hours and that the child had been partially born for four hours. The patient was extremely exhausted and the pains were almost continuous. The body and arms of the child were delivered; there was no pulsation in the cord. Abdominal palpation showed that the uterus was still of a very considerable size; there were no external signs of a twin, so in view of the patient's previous history the diagnosis of hydrocephalus was easy. I may here add in explanation that I had just come from an extremely septic surgical case and was therefore averse to making any vaginal examination; so finding that all efforts to deliver the head in the usual way were unavailing I resolved to try spinal catheterisation as a means of evacuating the fluid in the fœtal head, thus avoiding any introduction of hand or instruments by the vagina. With a small trocar equal in size to a No. 8 catheter I made a puncture in the dorsal region between the laminæ of the vertebræ. Through the opening thus made I passed a No. 8 probe-pointed catheter, thence up the spinal cord. I cannot say it traversed the central canal of the cord, though its passage was quite easy. I was immediately rewarded by the flow of fluid from the catheter and a rapid diminution of the abdominal swelling. I regret omitting to measure the quantity of fluid but roughly estimated it at about six pints. After this the head was delivered with ease, the patient making an excellent recovery. By evacuating the fluid in this way all risk of injuring the mother was avoided and the danger of infection was minimised.

Whiteparish, Salisbury, Wilts.

*** It is interesting to observe that a very similar case was described by Dr. J. W. Ballantyne at a meeting of the Edinburgh Obstetrical Society reported in THE LANCET of Nov. 19th, p. 1422.—ED. L.

[1] Nicholls: Montreal Medical Journal, December, 1900. Quoted by B. C. Stevens in his M.D. thesis (Durham) on Diseases of the Pancreas, 1901.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

ST. THOMAS'S HOSPITAL.

A CASE OF SUCCESSFUL OPERATION ON A CEREBELLAR ABSCESS SECONDARY TO MIDDLE-EAR DISEASE, WITH SOME POINTS IN THE DIAGNOSIS.

(Under the care of Mr. H. BETHAM ROBINSON.)

A BOY, aged 13 years, was admitted into St. Thomas's Hospital on May 27th. Eight years before he had measles, since which date he had had a fœtid discharge from the left ear. During the last three weeks there had been pain in the head and in the left ear. The ear discharge had stopped and there had been incessant vomiting and obstinate constipation. For the last two days he had been in a very drowsy condition. He had got rapidly thinner since the onset of his illness. On admission he complained of pain in his head which could not be specially localised. There was tenderness behind the left ear, with some œdema over the mastoid but no discharge. The membrana tympani was destroyed and the tympanum was filled with granulations. The pupils were equal, reacting to light and to accommodation, the vessels of the fundi were rather full and tortuous, the edges of the discs were blurred, and the discs themselves were slightly swollen. The tongue and facial muscles were unaffected. The grip of the left hand was weaker than that of the right; the left knee-jerk was increased but the plantar reflexes were equal and normal. He tended to curl up on his right side. His temperature, which previously had been as high as 104° F., on admission at 12 o'clock noon was 100°; this rose before the operation in the afternoon to 102·4°. His pulse was 94 and his respirations were 20.

A curved incision was made behind the pinna and this was drawn well forwards with a gauze retractor passed through the meatus. The mastoid antrum was opened with a gouge and pus escaped; the posterior wall of the meatus was taken away and the antrum and tympanum were freely thrown into one. The pus appeared to come from the posterior part of the antrum and from the groove for the lateral sinus. The groove was opened up and the

sinus was exposed but this was not the origin of the pus. In so doing the sinus was slightly lacerated and blood welled up freely, showing no thrombosis; the bleeding was easily controlled by gauze pressure. Further exploration showed that the pus was coming through the posterior wall of the antrum itself just in front of the sigmoid sinus and it ran away freely on introducing the pus seeker. The opening in the bone was now further enlarged when the underlying dura mater was seen perforated and the escaping pus pulsated a little and was very foul-smelling. A silver drainage-tube was passed into the abscess cavity and packed round with gauze. In the evening the patient's temperature was 99°, his pulse was 100, and his respirations were 20. On the 28th, in the morning, his temperature was 99°, his pulse was 120, and his respirations were 24; he was still drowsy. At 4 P.M. he had a rigor and his temperature rose to 104·2°; his pulse was 112 and his respirations were 20. It was considered advisable to tie the internal jugular vein which was done by Mr. C. A. R. Nitch. The vein was divided between two ligatures and its upper end, which contained fluid blood, was sutured to the wound in the neck. On the 29th his morning temperature was normal; there was very marked nystagmus from left to right in both eyes. At night the temperature rose again to 101·8°. On the 30th his morning temperature was normal and the pulse was 96; his general condition was more satisfactory. In the evening he had another rigor, his temperature reaching 104°. On the 31st his temperature was 98·2° and his pulse was 88. He was quite conscious, though somewhat dull; nystagmus-like movements of the eyes were still present, though less in frequency. His temperature at 8 P.M. was 99°. On June 1st there was a rise of temperature to 101·8°, due to the condition of the neck wound. On the 2nd the neck wound was opened and foul pus was evacuated. The tube in the cerebellar abscess was beginning to be pushed out. From this date onwards the temperature remained practically normal. On the 4th there was still free discharge from the neck wound, which was being syringed out with peroxide of hydrogen, and hot dressings were applied. The boy was still somewhat apathetic and showed slight incoördination in finer movements, such as trying to button his jacket. On the 9th his mental condition was still rather dull but improved; speech was indistinct; some nystagmus was still present; and the left arm was a little weaker than the right. On the 13th there was much less discharge from both wounds; the silver drain was more pushed out. On the 15th there was still perceptible weakness of the left arm, the nystagmus was almost gone, and both knee-jerks were rather feeble but more forcible on the left side. On the 18th the drain in the brain was left out and a small piece of gauze was substituted. On the 27th his general condition was most satisfactory; there was only slight discharge from the wounds; there were no nystagmus and no difference in the grip of the upper limbs. On July 1st he got up and there was no especial giddiness. On the 3rd the gait was fairly steady and he could stand still with the feet together and with the eyes shut. On the 13th he went to a convalescent home. The patient's condition has remained quite satisfactory since. When seen a few days ago he expressed himself as feeling quite well and wanted to return to school. His wound was soundly healed and his middle-ear disease was cured. He was quite strong on his legs with no tendency to tumble about and the grip of his left hand was as strong as that of the right.

Remarks by Mr. ROBINSON.—The above case is worthy of record from the fact that the cerebellar lesion produced evidence clinically corroborative of that obtained by experimental methods and enabled a diagnosis to be made with some certainty. Another feature was the drainage of the abscess through the mastoid in front of the sigmoid sinus. As happens in a large majority of abscesses of the brain this patient was the subject of chronic suppuration of the middle ear. Whether such an abscess is more frequently met with in the temporo-sphenoidal lobe or in the cerebellum has been differently stated; the records at St. Thomas's Hospital, however, show that a very much larger number are of cerebellar origin.

In considering the symptoms of this case in detail we have to deal, first, with those general ones indicating the presence of an abscess of the brain in relation with the chronic aural suppuration, and, secondly, with those special ones that enabled the abscess to be localised in the cerebellum. The general symptoms were incessant vomiting, obstinate constipation, headache, drowsiness, and optic neuritis. The headache was severe and could not be especially referred to the occipital region or to one side more than the other. The temperature, which had been before admission as high as 104°, on admission was 100°; rising before the operation to 102·4° with a corresponding increase in pulse-rate and respirations; the high temperature was no doubt related with the acute development of the symptoms with some localised meningitis and encephalitis. The loss of flesh was very marked and had been rapid—a feature of these cases.

The special symptoms pointing in my patient to a cerebellar abscess were the weakness of the left upper extremity and increase of the left patellar tendon reflex, both on the same side as the lesion, and his tendency to curl himself up on the right side—on the opposite side to the lesion. These symptoms, with others, have resulted from the experimental removal of one lateral lobe of the cerebellum as demonstrated by Luciani and Risien Russell, which observations have since been confirmed clinically, especially in the case reported by Dr. T. D. Acland and Mr. C. A. Ballance. The occurrence of weakness of the upper extremity on the same side as the supposed brain lesion would at once arrest attention and suggest its origin. Luciani considers this the result of the abscess cutting off from the opposite cerebral hemisphere the reinforcing influence of the lateral lobe of the cerebellum. The fibres thus involved would be those that pass through the superior cerebellar peduncles and an abscess in any part of the cerebellum which did not involve the course of these fibres should not produce the symptoms. The fibres of the superior peduncles are particularly related with the dentate nucleus, some being connected with its cells while others pass through it on their way from the cerebellar cortex. Should the lesion involve this portion of the cortex or the region of the dentate nucleus there may be weakness of the upper limb or both limbs on the same side as the lesion. Also it appears that the lesion must be deeply placed to the inner and front part of the lateral lobe and in the present case the abscess was certainly in front and also very deeply placed from the distance the tube went in. Evidently from the way the limb has recovered its normal power it would show that these fibres have been either not completely destroyed, perhaps only pressed on, or that, if destroyed, the normal balance has been restored in some other way. Up to the present these fibres of the superior peduncles have only been traced after decussation through the red nucleus to the optic thalamus. Although in this patient only the weakness of the upper limb on the same side was specially marked it is possible to see the same loss of cerebral influence over the lower limb but not to the same extent as in the upper; also, again, there might to a slighter degree be some change on the opposite side of the body due to those fibres of the pyramidal tract which do not decussate in the medulla.

The increase of the patellar tendon reflex on the same side as the lesion is explained on the same grounds as before—the weakening of the cerebral influence. The tendency to curl up on the opposite side was noticed by Risien Russell in monkeys after removal of one lateral lobe and clinically in cases described by Ballance, Deanesly, and Gamgee. Conjugate deviation of the eyes to the opposite side is not recorded although it may have existed. It was obtained experimentally by Risien Russell and noticed in Acland and Ballance's case. Nystagmus was not noticed until the second day after the operation and the movements are noted as being from left to right, or away from the lesion; the jerks should be to the side of the lesion. As it was a post-operative nystagmus there was the possibility of its development being related with some lesion of the external or horizontal semicircular canal. There were no rigidity of limbs and no loss of sensation. Muscular incoördination was not noted. In a case of chronic suppuration of the middle ear, as well as such a serious complication as a brain abscess, there may be other troubles present, such as thrombosis of the sigmoid sinus or septic meningitis. In this case the temperature and optic neuritis might have been partly explained by a localised septic meningitis; that this was not extensive was negatived by the absence of any rigidity of the neck and retraction of the head. The absence of rigors, tenderness in the neck, and marked intermissions in the temperature were against thrombosis of the sinus. After the operation it is true there was a rigor and as the sinus was then wounded it was considered probable that the vein had become infected; it was from this view that the vein was tied in the neck. Another

rigor took place two days later, but subsequently none and the temperature dropped to the normal line. It is difficult to say positively that septic thrombosis of the sinus occurred because it is possible that the rigors might have been due to some increased septic meningitis.

An interesting point which the operation brought to light was that there was a small opening on the mesial wall of the antrum just in front of the sigmoid sinus discharging pus. It was difficult to decide whether this had only just actually happened or whether it had been discharging through the middle ear for some little while. If this had been the case the acute onset of symptoms was probably related with the development of œdematous granulations damming up the exit of the pus. It is a well-known fact that both temporo-sphenoidal and cerebellar abscesses can discharge spontaneously through the middle ear and the flowing away of a large amount from the meatus would raise suspicions of such having occurred. MacEwan describes cases illustrating this feature, in two of which the necropsy showed that a communication with the exterior had taken place through the sigmoid groove with perforation through the dura mater. In the treatment of this case, although one decided that exploration of the cerebellum would be an essential part of the operation, the mastoid was explored in the usual way as a preliminary procedure. It was fortunate that it was so, for thereby the already made opening into the cerebellum was detected which might have remained undetermined had the exploration been through a trephine opening posterior to the sinus. The possibility of such a lesion through the mesial wall of the antrum is sufficient to impress on us the desirability of first opening the antrum as a routine measure. MacEwan in a successful case dealt with the abscess in the same way. On exploring the antrum he found a perforation leading into the sigmoid groove; the dura mater was then opened at a point internal and anterior to the sigmoid sinus and pus was evacuated from the cerebellum. Now, further, what was done in these cases as a matter of necessity may be done deliberately in certain others for exploratory purposes. Milligan,[1] in discussing suppuration in the labyrinth, says a cerebellar abscess is a frequent complication and in such a combination he recommends making an opening through the inner wall of the antrum, through the posterior part of the labyrinth, to the posterior surface of the petrous bone. In conclusion, I must express my indebtedness for many points on this subject to the valuable paper of my colleagues, Dr. Acland and Mr. Ballance, in St. Thomas's Hospital Reports, vol. xxiii.

NEWBURY AND DISTRICT HOSPITAL.

A CASE OF ACUTE SPREADING GANGRENE OF THE ARM; AMPUTATION; RECOVERY.

(Under the care of Dr. JOHN WATSON.)

A BOY, aged 11 years, on the night of Oct. 2nd, 1900, was admitted to the Newbury and District Hospital with a history that five and a half hours previously he had fallen from a tree in which he had been gathering chestnuts. On examining him the medical man to whom he was first taken advised his removal to the hospital, and as the accident occurred in the country this entailed a drive of nearly 12 miles. On admission he presented the appearance of a typically healthy country lad and Dr. Watson found that he had sustained a compound fracture of the left ulna about two inches above the wrist joint, which had not been reduced before sending him to the hospital: he was in great pain and there was slight oozing of arterial blood from the wound, the lower end of the upper fragment protruding an inch or so through the wound in the skin. The wound was very freely irrigated with perchloride of mercury (1 in 1000) until so far as could be seen all foreign material had been removed—e.g., dirt which had been introduced at the time of the fall. The fracture was then reduced without any difficulty and irrigation was again performed with the ends of the bone in apposition. A single carbolised catgut suture was inserted in the skin wound which was dressed with iodoform and sal alembroth gauze and wool, the forearm being fixed by an inner and outer straight splint. The wound was dressed on the morning of the 3rd and looked healthy, but on the evening of that day the patient's temperature had risen to 101·6° F. and he was very restless, though free from pain. On the next morning (the 4th) his temperature had dropped to 99° and a dusky blue tint of all the fingers and thumb and the hand generally was noticed. He complained at this time of great pain which opium only slightly alleviated; his pulse was very small and feeble and the temperature of the hand was distinctly lowered. Dr. Watson ordered opium for the pain with free administration of brandy and food in the shape of milk, eggs, and beef-tea at frequent intervals, and the splints were loosely applied outside hot boric fomentations which were surrounded with a thick layer of cotton-wool. The arm and forearm and hand were also placed in a warm carbolic bath every four hours, at which times the boric lint was renewed. In spite of this the gangrene spread with alarming rapidity, the patient's temperature rising steadily throughout the day and his general condition becoming very grave. On the morning of the 5th the whole forearm was black, œdematous, and covered with large sanious bullæ, and the lower third of the arm was infiltrated, especially on its inner aspect. The whole limb was offensive in the highest degree and the lad was being rapidly poisoned from septic absorption. Dr. Watson therefore decided to amputate at once and did so through the upper third of the arm by two lateral flaps; the blood-vessels were seen pulsating at the point of division and ligatures were applied to them. The outer flap looked healthy in all respects, but the inner one was decidedly œdematous and of a bluish-grey gelatinous appearance, so much so that a return of the trouble in that part was feared. The lad's pulse was so feeble and his general condition was so bad from septic absorption prior to the operation that he was expected to die on the operating table, so that he was put back to bed as soon as possible. On the next morning his temperature had fallen to 97·8° and he was much better. The wound looked very healthy and the whole of the unfavourable appearance of the inner flap had quite disappeared. From this date he made an uninterrupted recovery, the wound healing by first intention throughout, and he left the hospital recovered on Nov. 3rd.

Remarks by Dr. WATSON.—Cases of acute spreading gangrene are fortunately rare but when they do occur they cause grave anxiety to the surgeon by reason of their rapid onset, course, and termination, also by the fact of their offering no guiding "line of demarcation" at which he may operate with the hope of avoiding a recurrence of the gangrenous process in the amputation stump. Yet if he waits and loses valuable time in the hope that such a line of demarcation will form he will inevitably lose his patient, consequently he is called upon in these cases to act with decision.

The youth of the patient, the rapid onset of the affection, and the success of the treatment are remarkable. There is no doubt, I think, that some of the soil of the field was in spite of all our care left in the wound and proved a fertile breeding place for the germs of the disease. The fact of the wound healing so well in spite of the unfavourable appearance of one flap is also remarkable.

[1] THE LANCET, Feb. 13th, 1904, p. 416.

Medical Societies.

MEDICAL SOCIETY OF LONDON

Duodenal Ulcer and its Treatment.

A MEETING of this society was held on Nov. 28th, Mr. JOHN LANGTON, the President, being in the chair.

Mr. D'ARCY POWER read a paper on Duodenal Ulcer and its Treatment. He said that the subject of duodenal ulcer had not yet received adequate attention. During the last few years he had operated upon seven cases, particulars of which were submitted, and as he had also had the opportunity of seeing several others he felt justified in bringing the subject under the notice of the society. All the patients had been men and the cases could be divided into two great groups, those which perforated and those which did not perforate, and he gave the following descriptions of the two classes. In perforating duodenal ulcer the patient was usually a man in the prime of life who had hitherto considered himself in perfect health or who had suffered, if at all, from only the slightest symptoms of indigestion. Without warning he was suddenly seized with a stomach-ache of

such severity that he became collapsed. He might vomit but from the onset of the pain he passed neither flatus nor fæces. The pulse was small, regular, and quick but not nearly so much accelerated as the respiration. The area of liver dulness might or might not be altered and there was sometimes a point of maximum tenderness in the right hypochondrium. If no operation were performed the pain became less acute, the abdomen became uniformly distended, and the patient who had rallied from the initial shock again became collapsed and died from acute peritonitis. In the non-perforating cases the patient was usually an older man, perhaps between 50 and 60 years, who for many years had been a martyr to indigestion and for months past had suffered severe pain in his stomach which was relieved by vomiting. Examination showed him to be emaciated and he was constipated. Percussion revealed the fact that the stomach was greatly dilated and it was not very unusual to feel a lump in the neighbourhood of the pylorus, suggesting cancer of the pylorus or gall-bladder. Inquiry might elicit that many years ago he had once or twice brought up, or passed by the rectum, a large quantity of blood without serious pain or discomfort. This would be a case of duodenal obstruction resulting from cicatrisation of an old ulcer, the irritation of which had caused inflammatory thickening in the surrounding parts. Mr. Power then proceeded to examine in detail the signs, symptoms, and treatment of duodenal ulcer and arrived finally at the conclusions (1) that duodenal ulcers were not very uncommon, that they were single and occurred more frequently in men than in women; (2) that duodenal ulcers might perforate and cause acute symptoms or they might heal and by cicatrisation lead to symptoms of chronic duodenal obstruction; (3) that the sequelæ of a healed ulcer might be remote and the symptoms be mistaken for those due to cancer of the pylorus; and (4) that there were no means of recognising the existence of a duodenal ulcer in many cases until it perforated or until the results of its cicatrisation became manifest. In the surgical treatment there were two alternatives. The direct suture of a perforated ulcer afforded a prognosis which was less favourable than in similar cases of perforation of the stomach. The performance of gastro-jejunostomy in cases of dilated stomach due to duodenal constriction, on the other hand, afforded a prognosis which was the most favourable of all the conditions for which this operation was done at the present time.

Dr. F. DE HAVILLAND HALL had collected statistics of cases of duodenal ulcer but unfortunately those available had been almost entirely confined to post-mortem records. The subjects were almost exclusively males. It seemed to be a matter of extreme difficulty to diagnose the condition during life. Jaundice was sometimes present, as in a case quoted. Melæna without previous hæmatemesis was a feature in favour of duodenal ulcer. Some cases he had observed had had attacks of faintness. Pain and its relation to food varied considerably; in one case it came on constantly at night. In regard to treatment, gastro-jejunostomy was certainly very successful.

Mr. MAYO ROBSON had operated on about 30 cases of duodenal ulcer. About four of these were for perforation. The diagnosis of the chronic cases of this disease did not seem to him so very difficult. Most of the cases were drawn from the professional classes who lived too well, took insufficient exercise, and thus incurred hyperchlorhydria. The leading symptoms were pain coming on one hour before a meal and relieved by food, and pain in the small hours of the morning. Hæmatemesis and melæna might be entirely absent but in other cases there might be small quantities of black blood passed constantly in the stools. Often there were distinct tenderness in the region of the gall-bladder and rigidity of the right rectus muscle. There might be pain shooting upwards to the right scapula and occasionally slight jaundice. There could be no doubt about the remarkable benefit afforded by the operation of gastro-jejunostomy. He asked what amount of benefit was usually derived from medical treatment.

Dr. JOHN F. H. BROADBENT had collected six cases of perforating duodenal ulcer. Three were in labouring men. The symptoms were very urgent but the absence of the signs of generalised peritonitis was a notable feature. Out of 53 cases of duodenal ulcer collected from American sources only 13 had been correctly diagnosed before operation or death, and he thought the symptoms were often very obscure. The history and result of several cases were narrated.

Mr. W. BRUCE CLARKE wished to emphasise the importance of correctly diagnosing these cases. How to detect the difference between ruptured duodenal and ruptured gastric ulcer was also important. In both there was rigidity of the right rectus muscle. In his view the causation of duodenal ulcer was in some cases oral sepsis. He asked how long medical treatment should be tried before operation and whether any of the cases got well under medicinal measures?

Dr. H. E. BRUCE PORTER was surprised to hear Mr. Mayo Robson's statement that duodenal ulcer was easy of diagnosis and he (the speaker) referred to a case in illustration of the difficulty.

Mr. W. MCADAM ECCLES suggested as a means of differentiation the administration of a solid meal and a fluid one. In a case of gastric ulcer a solid meal induced pain immediately but a draught of hot fluid would relieve pain. In duodenal ulcer, on the other hand, both a solid and a fluid meal would cause pain some hours after ingestion and if this effect were associated with melæna the diagnosis of duodenal ulcer was justifiable.

Mr. W. G. SPENCER remarked that the treatment adopted was largely a question of the frequency of relapses. If these were repeated two or three times quite apart from melæna operation was indicated.

Mr. A. E. J. BARKER thought that the only trustworthy symptoms were pain coming on one or two hours before food and melæna with fainting attacks unaccompanied by vomiting. In some cases after artificial dilatation of the stomach the swelling was found to be greater on the right side of the abdomen. In regard to operation there could be no question as to the benefit derived from gastro-jejunostomy.

Mr. W. DOUGLAS HARMER had no doubt that duodenal ulcer was more frequent than was usually supposed. He had lately seen 12 cases of perforated ulcer in the region of the pylorus either on the duodenal or the gastric side. He doubted whether operations could be performed absolutely aseptically in cases of perforation even within 12 hours of perforation.

Mr. D'ARCY POWER replied.

CLINICAL SOCIETY OF LONDON.

Posterior Basic Meningitis.—Unilateral Tuberculous Meningitis in which a Bulbous Eruption followed Lumbar Puncture.—Post-operative Acute Local Tuberculous Infection.

A MEETING of this society was held on Nov. 25th, Dr. FREDERICK TAYLOR, the President, being in the chair.

Dr. C. R. BOX read a paper entitled "The Crises of Posterior Basic Meningitis." Certain paroxysmal exacerbations of symptoms occurred during the progress of posterior basic lepto-meningitis in patients whose cranial fontanelles had closed; these exacerbations Dr. Box proposed to call the "crises of posterior basic meningitis." In the most complete form this complex of symptoms was as follows: the temperature suddenly rises from subnormal or near normal to a considerable height, it may be as much as 7° F.; the patient experiences a feeling of chilliness or even has a rigor; headache, usually frontal or vertical, sets in and is often accompanied by vomiting; the neck becomes stiff or retracted and the mental condition dull; at the same time the pulse-rate does not fall but on the contrary is usually increased; the temperature remains high for a short time and then may fall as abruptly as it rose, the urgent symptoms at the same time subsiding. The whole crisis might, he said, be over in a few hours or it might last 12 hours or even more. In one case the knee-jerks were decidedly exaggerated during the paroxysms. Five cases were reported, three of which showed the "crises" in a typical form; in the other two the crises although present were not so obtrusive. Lantern slides of the temperature charts were thrown on the screen. Dr. Box remarked that this form of paroxysmal pyrexia was not included in the list formulated by the late Dr. Charles Murchison,[1] but apparently was recognised by the late Dr. J. S. Bristowe. Attention was drawn to the fact that the coexistence of secondary deafness or of secondary otitis media in posterior basic meningitis might give rise to considerable difficulty in distinguishing cases in which the crises occurred from cases of ear disease with secondary intracranial complications. Temporary increase in intraventricular

[1] THE LANCET, May 3rd, 1879, p. 645.

pressure was suggested as the cause of the exacerbations and the advisability of lumbar puncture or of some other operation for the relief of the pressure was suggested.—Dr. F. E. BATTEN was quite familiar with the class of case described, though he had observed it in patients mostly under the age of nine years. He asked what evidence there was that Dr. Box's cases were true posterior basic meningitis, what bacteriological evidence there was, and whether Weichselbaum's diplococcus had been identified. He objected to the employment of the term "crisis" which indicated a turning point or critical period of a disease. The rise and fall in temperature might, it was true, occur in post-basic meningitis (with no other symptom except a little cyanosis of the extremities), and the fall was just as characteristic as the rise; he had seen a fall of 10° F. in 12 hours; but the same series of symptoms might also be observed in such conditions as hydrocephalus, middle-ear disease, or suppurative pericarditis, and he could not agree that they were in any way pathognomonic of posterior basic meningitis.—Dr. WILLIAM PASTEUR also thought that the term "crisis" was a bad one. A point that struck him was that the drowsiness was present between the pyrexial attacks and not during them, a fact which was much against their being due to increased intraventricular pressure.—The PRESIDENT was similarly unable to see justification for the use of the term "crisis," though it had a wider meaning than that given by Dr. Batten, as evidenced by its use in locomotor ataxy. Such variations of temperature and associated symptoms occurred in many other septic conditions. The evidence of these cases being post-basic meningitis was not conclusive.—Dr. BOX, in reply, said that he applied the term "crisis" to the whole syndrome and not to the temperature alone, and thought that he was justified by the corresponding use of the term in cases of floating kidney. Bacteriological tests were applied in only two cases; in one a streptococcus was obtained, and in another the organism died out before identification. He based his diagnosis on the long duration and the similarity of the symptoms.

Dr. H. D. ROLLESTON and Mr. B. N. TEBBS described a case of Unilateral Tuberculous Meningitis in which a Bullous Eruption followed Lumbar Puncture. The patient was a boy, aged five years, who was perfectly well until after a day's malaise he was seized with general convulsions, more marked on the right side, with conjugate deviation of the head and eyes to the right. Lumbar puncture was performed between the spines of the third and fourth lumbar vertebræ and subsequently a cannula was introduced in this position and cerebro-spinal fluid, which at first was blood-stained, was allowed to run away. On the following day, on the afternoon of which death occurred, two bullæ appeared on the outer aspect of the right little toe. The whole illness occupied five days. At the necropsy there was tuberculous meningitis limited to the left Sylvian fissure which was thought to be due to an embolus derived from a caseous gland invading the apex of the left lung. There was an elongated blood clot three inches long under the arachnoid and in contact with the posterior nerve roots of the cauda equina on the right side. This clot, which was probably due to lumbar puncture, was regarded as having irritated the posterior nerve roots and ganglia and produced a bullous eruption resembling herpes. The chief points of interest were the unilateral affection of the meninges and the occurrence of the bullæ.—Dr. BOX said that the case was of interest in that it showed that lumbar puncture, though of great service, was not always harmless. He had twice seen thecal hæmorrhages follow the operation.—Dr. BATTEN asked whether the first sacral root ganglion had been examined. He pointed out that this posterior root ganglion was some distance away from the site of puncture. Injury of the spinal roots above the ganglia did not produce a vesicular eruption.—Dr. A. E. RUSSELL said that the case was of interest from its physiological aspect. Bayliss had shown that stimulation of the peripheral end of a cut posterior nerve root caused great vaso-motor changes in the limb supplied.—Dr. ROLLESTON replied that the sacral ganglia had not been examined.

Mr. EDRED M. CORNER and Mr. LEONARD S. DUDGEON described a case of Post-operative Acute Local Tuberculosis in which, after an operation for tuberculous glands of the neck, a local tuberculous infection of all the surrounding tissues occurred. The chief sign of this infection was local swelling after the wound had healed. The case therefore shed light on the nature of "swellings" seen after operations for tuberculous lesions. Several cases were narrated to illustrate this in connexion with the glands of the neck and tuberculous disease of the knee-joint and kidney. In these instances, and in many more not specifically quoted, the healing of the wound had been by first intention. Local infection did not seem to occur if the wound was left open or drained, or perhaps it occurred only in a lesser degree. The question of the advisability of employing drainage after such operations was raised, and where there had been obvious chance of infection occurring (e.g., when glands burst whilst being excised) the sounder surgery would be to close the wound incompletely and to employ drainage.—Mr. F. C. WALLIS urged that better results than those described were obtained by draining the wound for 24 hours so as to allow of the escape of serum, free exudation being one of the best means of preventing reinfection.—Mr. W. G. SPENCER doubted if fresh wounds under antiseptic precautions became infected with tuberculous material. He thought that its occurrence was due to incomplete removal of diseased tissue and urged more extensive operations in tuberculous cases. He had been impressed by the latency of tubercle bacilli. This was well shown in the lighting up of old foci after injection of Koch's tuberculin.—Mr. R. P. ROWLANDS suggested that the recurrence in the renal case quoted might be explained by the retention of a ligature or the tuberculous involvement of the ureter as in a case to which he referred.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

Sporadic Cretinism.—Caisson Disease.—Hodgkin's Disease.

A MEETING of this section was held on Nov. 11th, Dr. W. J. SMYLY, the President, being in the chair.

Dr. T. P. C. KIRKPATRICK showed a child, four years of age, who at the time weighed 15 pounds. Two years ago the child was under observation and then weighed 13 pounds. He was greatly emaciated, showed little or no signs of intelligence, and had never made any attempt to speak. The skin was clear and soft and the hair was well grown, the characteristic cretinoid aspect being completely absent. No trace of the thyroid gland could be detected by palpation in the neck. During the last fortnight, while the child had been under thyroid treatment, he had shown some signs of improvement. Dr. Kirkpatrick was inclined to look on the case as a rather anomalous one of sporadic cretinism.—Dr. W. LANGFORD SYMES suggested that the symptoms might perhaps be due either to rickets or to congenital syphilis.

Dr. J. B. COLEMAN made a communication on the subject of Caisson Disease as experienced by workers engaged in boring a tunnel for five miles beneath the bed of Lake Erie from and after the year 1897. He mentioned the theories of this disease—namely, (1) emboli of nitrogen liberated from the blood in consequence of reduced pressure, these emboli obstructing the small vessels and injuring the nerve elements; (2) the toxic effect of oxygen under high pressure; and (3) congestion with either acute revulsive anæmia or comparative stasis. The symptoms came on after rapid "decompression" of from one to three minutes. From ten minutes to six hours after reaching normal pressure the patient suffered excruciating pains, usually in his knees, sometimes in his shoulders and elbows, rarely in his hips; maniacal attacks supervened occasionally; retention of urine was common and in the severe attacks there was paralysis of the sphincter ani. Paraplegia occurred and lasted for a few hours to months and in severe cases persisted with the symptoms of spastic paraplegia; transient facial paralysis was seen; anæsthesia extending up to the ribs was common; an intense feeling of pruritus might occur without pain; bleeding from the nose and ears, vertigo, dimness of vision, headache, vomiting, and muscular cramps were other symptoms noted. Urgent attacks of dyspnœa ("the chokes") were frequent, during which the patient felt his lungs over-distended; then a cough was set up and large quantities of gas, seemingly from the stomach, issued from the mouth. Relief from the pains in the joints and from retention of urine was obtained by a very hot bath. After work the men felt "wearied and bruised" and on returning to the compressed air they became exhilarated and relieved. Except in the most severe attacks the symptoms always

abated on undergoing recompression. The highest pressure was 46 pounds to the square inch.—Dr. W. G. SMITH said that the interest of the disease centred in its pathology. It had been proved by experiments on animals that gas embolism could occur, but it puzzled him to understand how mechanical factors, especially with a gas like nitrogen, could account for such terrible and long-abiding effects. There must therefore be some other factor. He thought it premature to suppose that the symptoms were caused by gas embolism only. It would be well to examine the converse case and to compare the results of over-pressure with under-pressure, as in balloon ascents or mountain sickness. It was known that below a certain pressure a person would die, owing to diminution of the oxygen tension in the arterial blood. It was not the absolute pressure of the gases but the increased oxygen tension that was important. As to preventive measures he thought the method of purifying air and absorbing carbon dioxide by means of sodium peroxide should be employed.

Dr. G. PEACOCKE described two cases of Hodgkin's disease occurring in twin boys four years of age. One of them had died 18 months after the glandular enlargement first appeared. At the time of his death the glands on the right side of the neck and a few in the right axilla were enlarged. The spleen reached as low as the umbilicus. The red cells numbered 1,300,000 and the white cells 8400 per cubic millimetre respectively; the lymphocytes were 21 per cent. and the polymorphic cells were 86 per cent. The other boy, whose illness dated from last February, was still alive and his general condition was satisfactory. Some greatly enlarged glands in the left side of the neck had been removed a few weeks previously. His spleen was not enlarged and a blood count showed that the red cells numbered 4,000,000 and the white cells 8500 per cubic millimetre respectively.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN.—A meeting of this society was held on Nov. 18th, Mr. Robert Jones being in the chair.—Dr. Bertram M. H. Rogers (Bristol) and Dr. J. M. Fortescue-Brickdale (Bristol) showed a specimen of Congenital Atresia of the Tricuspid Valve. A child, aged two years, weighing 8 pounds 15 ounces, was admitted into the Children's Hospital, Bristol, suffering from bronchitis with extreme dyspnœa and cyanosis. The fingers and toes were clubbed and the lips and extremities were deep purple. There were no cardiac bruits and no apparent increase of cardiac dulness. She had suffered from repeated attacks of cyanosis. She died in a few hours. Post mortem the heart weighed three and a half ounces. When opened it showed hypertrophy and dilatation, mostly of the right auricle and left ventricle, patent foramen ovale, atresia of the tricuspid orifice, and a small opening between the ventricles. The right ventricle was very small and shut off from the auricle by a smooth membranous septum. There was no sign of endocarditis; the ductus arteriosus was closed. Dr. Fortescue-Brickdale attributed the cyanosis to the very deficient aeration of the blood and to the venous engorgement produced by the obstruction at the tricuspid orifice.—Dr. George Carpenter showed a specimen of Congenital Pulmonary Stenosis. The condition was associated with a perforate septum ventriculorum and a patent foramen ovale. The aorta in great part arose from the right ventricle. The heart was removed from a child aged two years. There was no history of syphilis or rheumatism and the child was free from other congenital abnormalities. The right ventricle was hypertrophied and during life this was an obvious feature. There was a loud systolic murmur audible all over the præcordial area and of maximum intensity at the xiphoid cartilage; it was inaudible in the great vessels of the neck and only occasionally heard in the back. The lips were cyanosed and the fingers and toes were blue and clubbed. The child was born blue and the cyanosis had latterly increased—she had twice been convulsed. The red corpuscles were 7,800,000 per cubic millimetre and the hæmoglobin 122 per cent. She died from measles. Dr. Carpenter drew attention to the large increase in the number of red corpuscles and of the hæmoglobin percentage, which in his experience was not an uncommon feature in cases of congenital morbus cordis with cyanosis. He also commented on the value of the skiagram in such cases and on the early advent of cyanosis. The absence of a systolic bruit in the great vessels of the neck was touched upon and its value when audible there as a diagnostic sign of the condition of perforate septum ventriculorum was, he thought, of considerable importance.—Dr. Sydney W. Curl showed a specimen of Atresia of the Pulmonary Artery. It was removed from an infant, aged three months, who was the subject of hare-lip and cleft palate. The septum ventriculorum was patent and the auricular septum was incomplete, the auricle forming one chamber. The aorta was large and sprang from both ventricles, but chiefly from the right. During life the child was not cyanosed and congenital malformation of the heart was not suspected. There was no bruit but the infant had attacks of dyspnœa with cyanosis.—Dr. James Taylor showed a case of Juvenile General Paralysis. The patient was a boy, aged 11½ years, the fifth in a family of nine, all said to be healthy. He was born at full term but did not walk till he was four years of age. At six years he developed a faculty for romancing, telling wonderful stories apparently merely to excite admiration. He was also frequently violent and vicious. He attended school and had reached the third standard when about three months ago his sight failed. He went to the Royal London Ophthalmic Hospital, where he was seen by Mr. E. Treacher Collins who referred him to Dr. Taylor. He was a small, badly-developed boy without any stigmata of syphilis. He had very much impaired vision, the pupils were unequal and did not respond to light, and there was well-marked optic atrophy. He walked rather feebly and a little unsteadily, his knee-jerks were exaggerated, and his plantar reflexes were extensor in type. His mental condition was one of more or less placid contentment with everything. Before he was admitted he cherished delusions that he was a wonderful singer and would gather children round him in order that they might hear him sing. The physical signs and the mental symptoms, slight as they might be, appeared to indicate definitely that the case was one of juvenile general paralysis and the physical and mental degeneration were likely to become much intensified.—Dr. J. Porter Parkinson showed a case of Bell's Paralysis with a Hemiplegic Onset. The boy, aged four years, had been perfectly healthy till July last, when paralysis in the right arm and leg and left side of the face occurred suddenly. The weakness of the arm and leg passed away in a week and when examined there remained only weakness of all the left side of the face. Dr. Parkinson thought the case due to a lesion of the nucleus of the facial nerve involving the pyramidal tract in some temporary manner, possibly passing œdema, and probably due to an encephalitis inferior, pathologically similar to acute anterior poliomyelitis.—Dr. Parkinson also showed a case of Ataxy of the Cerebellar Type—a girl, aged four years, who for four months had suffered from increasing incoördination in the movements of the arms and legs with increased reflexes; she had also weakness of the ocular muscles and diffuse choroido-retinitis scattered over the fundi of both eyes. There were mental impairment and an excessive emotional condition. Dr. Parkinson suggested that she had a diffuse degeneration of the brain, with symptoms pointing to a special involvement of the region of the corpora quadrigemina, producing the ataxy, increased reflexes, and ophthalmoplegia. The condition of the fundi of the eyes suggested it was a degeneration occurring in hereditary syphilis.—Dr. Harry Campbell showed a case of Progressive Palsy in a boy, aged 13 years. The paralysis began in the legs at the age of five years and was noticed in the hands at the age of nine and in the face at the age of ten years. It was symmetrical and in the extremities mainly confined to the long extensors. Electrical reactions were normal. Dr. Campbell was uncertain as to the nature of the affection.—Mr. Douglas Drew showed three cases of Unilateral Congenital Dislocation of the Hip of varying degrees of severity. He brought the cases forward with the idea of obtaining expressions of opinion as to the treatment. Mr. Drew thought in one case that no treatment, either operative or manipulative, was needed as the child walked extremely well with the aid of a slightly raised boot. In another case in which the deformity was more pronounced and walking more difficult Mr. Drew thought that operative measures would be needed and expressed the opinion that he should adopt the open operation in preference to the manipulative.—Mr. Drew also showed a case of Old-standing Dislocation of the Head of the Radius of two years' duration. The dislocation was forwards and was reduced by operation but in spite of the greatest care the condition recurred as soon as movement was permitted.

Inasmuch as the function of the arm was very little impaired and the deformity was trifling Mr. Drew advocated no further interference.—Mr. J. Howell Evans showed two cases of Cephalhæmatoma Neonatorum over the Occipital Bone and subsequently gave a lantern demonstration on the subject. Mr. Evans considered that these blood effusions were due to a reactionary hæmorrhage from a small artery which had been injured in the moulding of the infant's head during its passage through the birth-canal. Fœtal skulls and many lantern slides of the skulls of various animals were shown to illustrate Mr. Evans's views. He advocated the immediate surgical treatment of cephalhæmatoma neonatorum.—Mr. Sydney Stephenson showed a case of Graves's Disease in a boy, aged 12 years. The thyroid was enlarged and there were slight tachycardia, slight exophthalmos, and a curious pallid puffiness of each upper lid. There were no nervous symptoms.—Mr. Stephenson also showed two cases of Traumatic Keratitis following difficult Instrumental Labour.—Dr. Curl showed a specimen of a Tuberculous Fallopian Tube and Tuberculous Intestinal Ulcers removed from a case of general tuberculosis, aged two and a half years. It was not suspected during life. The uterus and ovaries were healthy.—The cases were discussed by Mr. Robert Jones, Dr. Edmund Cautley, Dr. F. Parkes Weber, Dr. C. W. Chapman, Dr. G. A. Sutherland, Dr. C. O. Hawthorne, and Mr. Lawrie McGavin.

CHELSEA CLINICAL SOCIETY.—A meeting of this society was held on Nov. 15th, Dr. T. Vincent Dickinson, the President, being in the chair.—Mr. E. Noble Smith read a paper on the Use of Mechanical Apparatus in Surgical Treatment and exhibited patients. He divided the cases requiring mechanical apparatus into two classes, the inflammatory and the non-inflammatory, tuberculous disease of joints being typical of the former class and deformity arising from various paralyses and weakness being instances of the latter class. In the inflammatory conditions, as every surgeon was aware, absolute rest of the affected parts was imperative; in the other class the surgeon's object should be to correct the deformity without interfering with the natural movements. This was a completely different system from that pursued by mechanicians who were not surgeons and it required the knowledge of physiology as well as of mechanics to cope with the peculiarities to be dealt with. Mr. Noble Smith then proceeded to demonstrate the methods of treatment by apparatus as applied to caries of the spine and to lateral curvature. The principles of the apparatus in both kinds of cases involved (1) expansion of the thorax without any pressure upon its anterior or lateral parts; (2) continuation downwards of the instrument to the seat in sitting; and (3) possibility of modification of the machine by the surgeon. The principles of *application*, however, differed widely in the two kinds of cases. In the inflammatory cases—caries—the body of the patient was kept close to the apparatus previously adjusted to the proper position, whereas in the non-inflammatory—scoliosis—the apparatus was so arranged that it favoured movement and only came into action when the patient for any reason inclined towards a bad position. Thus, as regards scoliosis a principle was introduced totally different from that appertaining to any spinal instrument devised by a non-medical mechanician. This same principle could be similarly applied in the treatment of all deformities requiring apparatus and in which no inflammatory disease existed.—Dr. J. H. Dauber then read a paper on Detached Ovum with Profuse Hæmorrhage, with some comments on the Treatment of Incomplete Abortion. He said, referring to the number of cases of miscarriage or abortion that had entailed grave illness and even fatal results, that every fatal case attended from the first by a medical man was a reproach to the profession. These, however, were fortunately rare but a large number of cases of salpingitis, pyo-salpinx, ovarian abscess, pelvic peritonitis, and other conditions found in the hospital out-patient department could be traced to miscarriage at some period of gestation. Miscarriage, especially among the lower classes, was so common as constantly to be disregarded and patients took the small risk rather than submit to the inconvenience of treatment. Dr. Dauber gave an account of three cases of violent hæmorrhage, all occurring during the third month of pregnancy and all taking place during the hot weather, to the effect of which on the vascular system he attributed the flooding. In each case the ovum forceps and curette were used under an anæsthetic and the uterus was washed out with perchloride solution (1 in 4000) and packed with cyanide gauze. In each case the patient recovered perfectly. The importance of the thorough use of the curette was illustrated by reference to a case of uncontrollable hæmorrhage after miscarriage in which the removal by the curette of a portion of membrane not larger than a third of a grain of wheat was followed by immediate recovery.—The President showed a Kidney which had been removed and attached to which was a cyst of about the size of a large orange. The principal symptoms were tachycardia and slight bronzing of the skin. On removal of the kidney the pulse, which had been 120 or 130, dropped at once to 90, and finally after recovery from the operation to 60.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—A meeting of this society was held at Sheffield on Nov. 18th, Mr. R. Favell, the Vice-President, being in the chair.—The society passed a unanimous vote of congratulation to the President, Sir William Japp Sinclair, on the honour recently conferred upon him by the King.—Dr. J. E. Gemmell (Liverpool) read a short paper on a case of Cæsarean Section for Myasthenia Gravis. The case had been referred to him by Dr. W. B. Warrington, physician to the Northern Hospital, Liverpool, who had described it from the physician's point of view in the *Medical Chronicle* for April, 1904. Dr. Gemmell remarked that the clinical feature of the disease was muscular weakness of some or all of the voluntary muscles, sometimes amounting to paralysis. After a prolonged rest these same muscles might respond to the will but they again became rapidly exhausted. Soon after the patient's admission to the Northern Hospital it was found that she was pregnant and that as the pregnancy advanced the disease became worse until physical exertion of the slightest kind produced the greatest exhaustion and led to the onset of alarming dyspnœa. Labour was expected about Oct. 20th and the patient was admitted to the lying-in hospital on the 15th. During the first 24 hours she had four attacks of dyspnœa, each lasting five minutes, whilst for the first 48 hours she scarcely slept at all. Dr. Warrington had pointed out that if the patient did not succumb during the first stage of labour attempt at the use of the secondary powers in the following stage would almost certainly bring on a fatal attack of dyspnœa. The dyspnœa increased in gravity and on the 18th it was found that the only respiratory movements were those associated with hiccough. Cæsarean section, as the speediest means of delivering the patient, was decided upon. The operation was rapidly carried out without any difficulty and was followed by uninterrupted recovery and gradual improvement of the respiratory symptoms. Chloroform was the anæsthetic employed, very little being required. Dr. Gemmell had been unable to find any reference to the effect of parturition in advanced cases similar to this one. One patient with ocular paralyses became pregnant and practically recovered from the paralyses.—Professor Arthur J. Hall (Sheffield) remarked that such an event as Cæsarean section was probably unique in the annals of myasthenia gravis. He referred to the rarity of cases of this disease and to the constancy with which they were usually diagnosed as hysteria in their earlier stages, chiefly because of the extreme variability of the symptoms from day to day, or even from hour to hour. In a fatal case of the disease which he had recorded a few years ago in *Brain* this variability was a striking feature; at one time the patient would walk fairly well, while at another time she would hardly be able to stand.—Dr. John W. Martin (Sheffield) read notes of a case of Double Ovarian Papillomatous Cystic Tumours with a large Fibroid springing from the Fundus Uteri.—Mr. Percival E. Barber (Sheffield) read notes of three cases—namely, (1) Fibroma of the Abdominal Wall; (2) Ectopic Gestation; and (3) Rupture of the Uterus occurring in a very obese woman, aged 32 years, and terminating fatally.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held in the Ophthalmic Institute on Nov. 18th, Dr. D. Newman, the President, being in the chair.—Dr. A. Maitland Ramsay showed a case of Cephalic Tetanus following a contusion wound of the outer canthus. The patient was a woman, 23 years of age, who was admitted to the Ophthalmic Institute on Sept. 21st. Four days previously she had been struck on the right eye with a walking stick. On admission to the hospital she was found to have a suppurating wound extending for about three-eighths of an inch outwards from the external canthus of the injured eye. There was no corneal injury but there was extensive

chemosis of the bulbar conjunctiva, which covered the cornea over its outer half. The fundus oculi could not be illuminated and all perception of light was lost. About three days after admission symptoms of trismus supervened. Dr. J. Campbell McClure found the tetanus bacillus in the discharge. The injection of antitetanic serum was at once commenced and for two days the condition remained unchanged. On the evening of Oct. 1st, while the eye was being douched, the patient had an attack of laryngeal spasm so severe that it was feared she would die from suffocation. The serum injections were continued, chloral was prescribed in large doses, and on the following day the tonic contraction of the muscles of mastication was distinctly less, although there was again a tendency to spasmodic dyspnœa when the wound was being dressed. The patient steadily improved and after Oct. 3rd the injections were intermitted for six days. With the right eye she could now determine hand movements at six feet and could count fingers at two feet. Antitetanic serum was administered seven times to a total amount of about 150 cubic centimetres.—Dr. Ramsay also demonstrated a New Projection Apparatus for showing Opaque Objects.—Dr. John Rowan showed a series of cases illustrating Interstitial Keratitis in its various stages from the acute, when the cornea was converted into an apparently hopeless opaque mass, till the traces left were so slight that a minute examination was necessary to detect their presence. Although apparently there were often no traces left yet by careful examination it was always possible to recognise a patient who had suffered from this disease.—Dr. Hugh Wright Thomson showed a case of Optic Atrophy involving only the central part of the field of vision in a lad, 16 years of age. Scotoma was absolute in each eye. The disease had been present for two years. The eyes fixed objects eccentrically. The patient was the fourth member of a family of 17. A brother and sister who were older than he was had the same disease. The family history was negative, except for a cousin on the maternal side who was thought to suffer from a similar condition.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—A pathological meeting of this society was held on Nov. 18th, Dr. A. Bronner being in the chair.—Dr. A. S. F. Grünbaum gave a *résumé* of the Germ-cell Theory of Cancer, with especial reference to the work of Dr. J. Beard, and the bearing on it of the researches of Professor J. B. Farmer with Mr. J. E. S. Moore and Mr. C. E. Walker. The remarks were illustrated by microscopic and lantern slides (some of which had been lent by Professor Farmer and by Dr. Beard) showing various forms of nuclear division and aberrant germ cells.—Dr. J. Braithwaite, Dr. T. Churton, Dr. A. G. Barrs, and Dr. J. T. Fox took part in the discussion which followed and Dr. Grünbaum replied.—Mr. B. G. A. Moynihan showed a complete series of specimens from cases of Cholecystectomy. He also gave a lantern demonstration of photographs of specimens, taken from various museums, illustrating the various diseases of the gall-bladder and their effects.—The following pathological specimens were shown:—Mr. J. C. Nixon: (1) Kidney with Calculi; and (2) Conjoint Kidney.—Mr. H. Littlewood: Fibro-cystic Tumour of the Breast with Intra-cystic Growths.—Dr. S. Edgerley: (1) Primary Carcinoma of the Liver; and (2) Cystic Kidneys.—Mr. W. H. Brown: (1) Pancreatic Cyst; (2) Sarcoma of the Neck; and (3) Fistula between the Gall-bladder and the Duodenum.—Mr. G. Constable Hayes: (1) Single Acute Nasal Polypus which filled the Nasal Cavity; and (2) Large Aural Polypus.—Dr. Churton: Tumour of the Cerebellum with Acute Dilatation of the Ventricles Diagnosable during life.—Mr. A. L. Whitehead: (1) Absolute Glaucoma; (2) Chronic Irido-cyclitis; and (3) Glioma.

HUNTERIAN SOCIETY.—A pathological meeting of this society was held on Nov. 23rd, Dr. F. J. Smith being in the chair.—Dr. Ernst Michels exhibited a specimen and sections from a case of Sarcoma of the Small Intestine. No obstruction had been produced, indeed the gut was greatly enlarged in lumen opposite the tumour and resembled an aneurysm. The entire symptoms lasted but a little over a week.—Dr. Smith exhibited, by permission of Dr. G. Schorstein, a specimen of Complete Thrombosis of the last three inches of the Aorta which extended down both iliac and femoral arteries. The inferior vena cava was also thrombosed. The case was at first regarded as one of paraplegia but subsequently gangrene appeared in both feet and before death had extended to above the knee on the left side and half way up the calf on the right.—Dr. Smith also showed a specimen of a Rupture of the Liver which had not caused the death of the patient. The rupture, which was for the most part sub-peritoneal, passed transversely across the liver and was almost complete from side to side and from before backwards so as nearly to divide the liver in two. The patient, who survived five days, died from multiple injuries which involved the lung and pleura and included a number of fractured ribs. Dr. Smith regarded rupture of the liver as invariably fatal unless operated on.—Dr. G. E. Manning dissented from this view, as he had found the scar of an extensive rupture of the liver in a patient 20 years after the accident.—Mr. H. L. Barnard also disputed Dr. Smith's view on the evidence of several clinical cases.—Dr. H. Russell Andrews showed two specimens of Ruptured Pregnant Tubes in both of which the ovum was intact.—Mr. Barnard exhibited the Left Cerebral Hemisphere of a patient the subject of a glioma of the posterior Rolandic area. The arm centre and to a less degree the leg centre were invaded. The symptoms, which were headache, vomiting, optic neuritis more marked on the left side, Jacksonian epilepsy starting in the right hand, paralysis of the right arm and foot, torpor, and constipation, were only of eight weeks' duration.—Dr. Manning showed an Apparatus formed of canvas and tapes for retaining a fractured clavicle in a good position.

MIDLAND MEDICAL SOCIETY.—A meeting of this society was held at the Medical Institute, Birmingham, on Nov. 23rd, the President, Dr. E. W. Wood White, being in the chair.—Dr. A. Douglas Heath showed a girl, 11 years of age, suffering from Favus of the Scalp. The disease had been present for many years but had never attacked any other region. The central portion of the scalp was covered with a thick white scurf and the hair was very thin and feeble. Numerous scutula could be seen on the margins of the hairy scalp in the temporal regions and scrapings taken from them showed the characteristic mycelium and spores of achorion Schönleinii.—Dr. J. W. Russell showed a woman, aged 32 years, the subject of Acromegaly. She had been ailing for seven years and complained of fatigue on exertion and headache. There had been no vomiting. The hands and feet were greatly enlarged and radiograms showed elongation and thickening of the phalanges, thickening of the soft parts, and some enlargement of the ends of the radius and ulna on each side. The face was also greatly enlarged, especially the lower jaw. The skin of the face was coarse and the lips were considerably thickened. There were no hemianopia and no optic neuritis. Amenorrhœa had lasted two years but menstruation had reappeared whilst the patient had been under observation.—Dr. Thomas Wilson read a paper on Some Cases of Rupture of the Uterus.

ROYAL MEDICAL SOCIETY, EDINBURGH.—A meeting of this society was held on Nov. 18th.—Dr. A. C. Geddes delivered his Presidential Address. After thanking the society for the honour conferred upon him he gave a short description of the most primitive types of religion, having first defined the term. He then sketched shortly the evolution of religion, showing how it was grafted upon magic. He divided the history of the world into three ages—that of magic, that of religion, and that of science—and considered that the age of religion would pass away in the same manner as had the age of magic. He continued by discussing the state of morals amongst all classes at the present day and showed how the decline of each civilisation had been marked by luxury amongst the upper classes and by vice amongst the lower classes. He stated that mental waste had killed civilisations in the past and might do so again. He concluded by describing a future Utopia as suggested by Metchnikoff.—Dr. A. C. J. Woodward proposed, and Dr. P. D. Wilkie seconded, a vote of thanks to the President for his address.—Dr. L. S. Milne read notes of two cases of Drop-foot where the diagnosis was obscure.—Dr. R. W. Johnston read a dissertation on Venesection. He first sketched the history of the subject and then described the modern views as to the use of venesection and the way in which it was beneficial.

ERRATUM.—In Dr. Dudley Buxton's speech on Chloroform Anæsthesia at the recent meeting of the Royal Medical and Chirurgical Society lines 8 to 13 should read: "It

was, of course, most essential that any mechanical inhaler should be regarded merely as a help to the person giving the anæsthetic; he must know the condition of his patient, the requirements of his *surgeon*, and could then by graduating the dose to a suitable level often save *disaster*."

Reviews and Notices of Books.

Modern Ophthalmology: a Practical Treatise on the Anatomy, Physiology, and Diseases of the Eye. By JAMES MOORES BALL, M.D., Professor of Ophthalmology in the St. Louis College of Physicians and Surgeons. With 417 illustrations in the text and numerous figures on 21 coloured plates. Philadelphia: F. A. Davis Company. 1904. Part I., pp. 400; Part II., pp. 401–820. Prices: extra cloth, $7.00 net; half morocco, $8.50.

THESE handsome and well-illustrated volumes are creditable to all who are concerned in their production: to the author with his several co-workers; to Miss Margaretta Washington who has executed the originals of the coloured illustrations; to Dr. R. W. Mills and Dr. Carl Fisch who are responsible for the uncoloured illustrations; and to the F. A. Davis Company which has published the work and has supplied the excellent type and paper, which last permits full justice to be done to the numerous original and well-finished drawings.

The first 150 pages are occupied with an account of the development of the eye and its appendages and with the usual introductory chapters on the anatomy and physiology of the eye and upon the right mode of examining it. This part contains a good drawing of a coronal section of the head by Mr. John Murphy of Cincinnati showing the relations of the parts about the eye and other illustrations of the arteries, veins, and nerves of the orbit, the cerebral origin of the optic nerve, the retina, and the arrangement of the optic fibres in the chiasma and of the papillomacular fasciculi in the optic nerve. All of these are instructive, several are original, and many are taken from the works of such well-known authors as Leber, Ivanoff, Boehm and Davidoff, Merkel, and Greef.

The Physiology of Vision is judiciously, because briefly given. The details of normal refraction require a volume to themselves and many works devoted to this subject by able writers are at the disposal of the student and the practitioner. Errors of refraction are considered in a separate chapter at the end of the work. The author leaves open the question of the mode in which accommodation is effected, mentioning, but avoiding a definite opinion on, the rival theories of Helmholtz and Tscherning. The different instruments for the examination of the eye are described and depicted, such as the ophthalmoscope, Maddox's rod, Stevens's rotating prism slide and phorometer, Risley's rotary prism, Noyes and Hulen's prism holders, Stevens's tropometer, the various perimeters, ophthalmometers, and many other instruments. The mode of testing the light sense by Förster's photometer is given, a proceeding that is important in various cases of general disease in which the blood is vitiated and that is useful also in certain forms of choroidal, retinal, and optic nerve diseases. In regard to the colour sense, the unsatisfactory results of Holmgren's method of testing with coloured wools are dwelt upon and it is strongly recommended that those whose occupation requires them to interpret coloured signals should be examined in circumstances similar to those presented to them in their ordinary work, and the suggestions of Dr. C. A. Oliver that an experimental track with a number of open switches so arranged that the sidings pass directly beneath certain coloured lamps would be useful for the practical testing of colour vision in drivers guiding locomotives under high rates of speed is fully endorsed. The various methods of Leonard, Sweet, and Davidson for the localisation of foreign bodies by means of the x rays are sufficiently given.

The vast importance that recent researches have conferred upon micro-organisms in the production of disease is nowhere more distinctly brought into view than in studying the etiology of the diseases of the eye and its appendages. The moist warm surface of the globe, the free access of air, the seclusion of the conjunctival sinuses, the long and tortuous tear ducts, and the communication with the passages of the nose which constitutes the natural filter for all the material impurities of the air which we ordinarily breathe—all contribute to render the conjunctiva a favourable ground for the growth and multiplication of microbes, and it is only a matter of surprise that so thin a membrane should be so resistant. It is satisfactory to find that the majority of the micro-organisms found in the conjunctival sac are harmless, as 28 varieties or species have been counted. Dr. Ball observes that the staphylococcus albus is found so frequently that it must be regarded as a regular inhabitant of the conjunctiva and justly adds that the bacteria which are non-pathogenic in the normal conjunctiva may become harmful when this membrane is injured or irritated.

A plate is given showing some of the various forms of micro-organisms that have been found in the secretion. The pneumococcus of Fraenkel, which consists of oval cocci, encapsuled and frequently arranged in pairs or chains with the free ends pointed, is thought by some to be a common cause of simple conjunctivitis, whilst others express doubts on this point which appears to be worth investigation. It is clear that the differential diagnosis of numerous microbes, though possibly familiar to experts, is not certainly known to ordinary practitioners whose experience is more limited. Thus in regard to diseases of the lacrymal organs, in speaking of calculi in the canaliculi the author notes that up to 1874 the fungus reported to have been found in these concretions was the leptothrix which consists of isolated, unbranched, straight, and very thin filamentous cells characterised by their power of secreting lime salts. Since 1874 the allied fungus streptothrix, which consists of curved chains of cells, has in all instances been found. But in 1894 actinomyces was reported to exist in such concretions and several microscopists are of opinion that actinomyces is invariably present, which the author himself is satisfied is incorrect. This, though a small matter, should be cleared up. The account of the etiology, symptoms, and treatment of lacrymal obstruction is good and we cordially agree with Dr. Ball that much may be done in effecting a cure without resorting to the use of probes or to operative proceedings. The nasal mucous membrane demands more attention than is usually given to it. The use of cocaine and adrenalin will aid the surgeon in the inspection of this part. Adenoids should be removed; the sac and duct should be washed out daily with hot boric acid solution; errors of refraction should be corrected, and if these means fail then, and then only, probes should be systematically used. As much harm is often done by unskilful probing of the canaliculi as by catheterising the urethra. With regard to the several modes of operating for lacrymal obstruction Dr. Ball has scarcely a good word to say of any of them. The frequency with which obstruction is associated with carious teeth is not mentioned. He does not approve of the use of large probes.

The remedies suggested are cleanliness, a 1 per cent. solution of boric acid, a one-fifth of a 1 per cent. solution of chloride of zinc, a 1—15,000 solution of bichloride of mercury, or a zinc sulphate and cocaine solution containing from one-quarter to one-half of a grain of zinc sulphate and one grain of cocaine hydrochlorate in one

ounce of water, protargol (5 to 10 per cent.), largin (5 to 10 per cent.), argentamin (2 to 5 per cent.), and argyrol (5 to 10 per cent.). All forms of poultices are absolutely contra-indicated. It will be seen from this that the most recent as well as the most rational modes of treatment are placed before the reader and from these he can make his own selection. The author entertains no doubt that chalazion, the ordinary tarsal tumour, is of tuberculous origin: it is, he says, composed of typical tuberculous tissue presenting numerous round cells, epithelioid cells, and occasionally a giant cell. But inoculation with tubercle bacilli will not produce chalazion and various other micro-organisms have been found with some constancy in the contents of a chalazion cyst.

The chapter on Glaucoma, though short, is interesting. The author is not satisfied with Mr. J. Priestley Smith's definition that it is increased intra-ocular pressure plus the causes and results of such pressure. He points out that late observations indicate that several diseases have been included under the term glaucoma and strongly urges that changes in the sympathetic nervous system have much to do with the production of idiopathic glaucoma. He is himself disposed to believe that primary glaucoma should be defined as a disease of the sympathetic nervous system producing increased intra-ocular pressure. It is always progressive and tends to destroy vision. He discusses the varieties of glaucoma under the heads of glaucoma simplex, chronic irritative glaucoma, acute inflammatory glaucoma, hæmorrhagic glaucoma, and secondary glaucoma. He gives the results of his investigations on the changes seen under the microscope in sections of the superior cervical ganglion of the sympathetic nerve. Amongst these are marked hyperplasia of connective tissue in the ganglion with infiltration of small round cells, sclerosis of the blood-vessels, pigmentation and degeneration of the ganglionic cells, and displacement, sometimes absence, of the nucleus.

Holding these views it is not surprising that Dr. Ball's treatment is heroic and directed to the sympathetic ganglia. He does not find that iridectomy, sclerotomy, cyclotomy, and excision of the superior sympathetic ganglion, which are the four principal operations that have been proposed, are invariably to be depended on, but whilst giving a very high position to iridectomy he thinks sympatheticectomy—an uncouth term—should be performed when iridectomy or sclerotomy is refused, in hæmorrhagic glaucoma, and in glaucoma simplex with great loss of vision. It is doubtful whether any but a practised operator would care to cut down upon the sympathetic trunk in the neck, as it is frequently very small and in many cases the jugular vein would require section and ligature. It is curious that he does not press the performance of Hancock's operation seeing that the only two cases in which he tried it proved in every way satisfactory.

The author has obtained assistance from other observers in some of the later chapters, such as those on Diseases of the Orbit, by Dr. William Shoemaker of Philadelphia; on Anomalies of the Muscular Apparatus, by Dr. William Zentmayer of Philadelphia; on Refraction, which has been written by Dr. John T. Krall of Philadelphia; on the Ocular Manifestations of Nervous Diseases, by Dr. J. C. Knipe of Philadelphia; on the Hygiene of the Eyes, by Dr. Harold G. Goldberg of Philadelphia; and finally, on the Methods employed in the Microscopic Examination of the Eye, by Dr. W. E. Fischer of St. Louis. All contributions seem to us to be the work of men who are thoroughly familiar with the practice of ophthalmology. A short chapter on the economic value of the eyes might with advantage have been added. This treatise is one of the best amongst the many good ones that have appeared during late years and we anticipate that it will be widely read and consulted alike in its own country, in England, and on the continent.

Legal Medicine (in India) and Toxicology. Illustrative Cases. By Major COLLIS BARRY, I.M.S., F.R.S.Edin., Chemical Analyser to the Government of Bombay. Vol. II. Bombay: Thacker and Co., Limited. Pp. 611.

As the subtitle of this work indicates, this volume consists of a collection of cases illustrative of various points in connexion with medical jurisprudence. The cases are representative of different conditions and circumstances which have been reported by various observers or have been brought before the courts. They are therefore valuable as being available as evidence when similar questions are under discussion. The instances selected are not, of course, confined to those which have occurred in the Indian courts but have been collected from world-wide sources. The volume is designed to supply the members of the medical and the legal professions with a handy book of reference and the author has succeeded admirably in his endeavours. The wise precaution has been taken of not including several of the older cases which are so often quoted when more modern ones serve the purpose equally well. This work is now a most complete one.

LIBRARY TABLE.

The Suppression of Tuberculosis, together with Observations concerning Phthisiogenesis in Man and Animals and Suggestions concerning the Hygiene of Cow Stables and the Production of Milk for Infant Feeding, with Special Reference to Tuberculosis. By Professor E. VON BEHRING, University of Marburg. Authorised translation by CHARLES BOLDUAN, M.D. New York: John Wiley and Sons. London: Chapman and Hall, Limited. 1904. Pp. 85. Price 4*s.* 6*d.* net.—The principal article in this book is the translation of a lecture delivered at the seventy-fifth meeting of naturalists and physicians in Cassel on Sept. 25th, 1903. In reply to certain criticisms of a statement in this lecture Professor von Behring published an explanation in the *Deutsche Medizinische Wochenschrift*, No. 6, 1904. This explanation is reproduced, in part, in the appendix to this volume. The two articles "Observations on Phthisiogenesis" and "Suggestions concerning the Hygiene of Cow Stables" are taken from *Beiträge zur Experimentellen Therapie*, No. 8, 1904. Each article, with the exception of the last mentioned, is reproduced in full and without changes. In a few cases where an exact equivalent for the German could not be found the translator has used the nearest English equivalent followed by the German word in brackets. In the Cassel lecture Professor von Behring states that he has strong reasons for believing that bovine tuberculosis plays an important rôle in the etiology of human tuberculosis and that he is firmly convinced that by means of the knowledge gained from the study of bovine tuberculosis we shall be able to prevent to a great extent human pulmonary tuberculosis and favourably to influence the course of already existing tuberculous diseases. It is only within recent years that we have secured tolerably trustworthy data to enable us to judge of the distribution of tuberculosis in civilised countries. The author quotes Naegeli of Zürich who was unable to discover post mortem a single body over 30 years old in which there were not some signs of the occurrence of a tuberculous infection. Between the ages of 18 and 30 years the infected were 90 per cent. In the bodies of infants under one year, on the other hand, definite tuberculous signs were invariably absent. Professor von Behring is of opinion that "the milk fed to infants is the chief cause of consumption." He says he knows of a large number of herds of cattle which by means of Bang's rules have been made free from tuberculosis and kept so. In the

appendix the author speaks of the importance of keeping individuals suffering from pulmonary tuberculosis who are much troubled with cough away from the young infant. He points out that while adults in healthy circumstances possess a strong protection against the action of the tubercle bacilli in the form of the epidermis, the epithelial covering of the mucous membranes, and the anti-bacterial ferments, in the newly born the mucous membrane is very permeable and lacks the protective ferments. The little book is a valuable translation. It treats of one of the most important questions which relate to the health of mankind. It should be read by all those who are working for the protection of the race against tuberculosis.

Kompendium der Röntgen Therapie. (*Compendium of Röntgen Therapy.*) By H. E. SCHMIDT, Assistant in the University Institute for Light Treatment in Berlin. Berlin: Aug. Hirschwald. 1904. Pp. 62. 22 figures. Price 1 mark 20 pf.—This book provides a useful short account of the apparatus necessary for x-ray work and it also gives detailed instructions as to the modes of procedure to be followed in the treatment of the various conditions in which the x rays have been found useful. The author expresses the view that new tubes differ in their effects from old ones, even when their degree of "hardness" is the same. This point, and many others which at present render x-ray therapy a little uncertain, are likely to be cleared up as soon as the employment of a milliampèremetre in the circuit of the tube becomes general. An apparatus permitting of measurement of current under these conditions has lately been designed and it is to be hoped that the use of instruments of this kind may make the treatment by the x rays more simple and less risky.

Clinical Records of Light and X-ray Therapy (*Illustrated*). By G. G. STOPFORD TAYLOR, M.D. Durh., Honorary Attending Physician to the Liverpool Skin Hospital. With 25 full-page plates. London: John Bale, Sons, and Danielsson. 1904. Pp. 33, medium 8vo. Price 5*s.* net.—This little book gives a pictorial record of 12 cases which the author has treated by the x rays or by applications of light. The illustrations given show the condition of the patients before and after treatment and the results obtained are thus presented in a striking manner. An explanatory text accompanies the plates and gives details of the mode of treatment adopted in each instance. The cases figured are the following: rodent ulcer, five; lupus, two; acne vulgaris, one; acne rosacea, one; and epithelioma, three. The cases of epithelioma were partly healed by the x rays but the disease was not cured. The cases of lupus were treated by arc lamps; the results were slow in coming but finally proved successful. The remaining cases treated by the x rays were all successful. The illustrations are good and the whole book forms a useful piece of evidence as to the effect of the x rays in therapeutics.

Ophthalmology: Essays, Abstracts, and Reviews. Vol. I., No. 1. October, 1904. Issued quarterly in parts containing about 200 pages. Editorial and publishing offices: 105, Grand Avenue, Milwaukee, Wisconsin, U.S.A. Price 6*s.* per part or by annual subscription £1.—This is the first number of a new journal which replaces under new management a journal, the *Annals of Ophthalmology*, that has recently issued the first part of its thirteenth volume but which has stopped, owing, we are told, to the resignation of the entire staff. The editorial staff of *Ophthalmology* includes many well-known writers, amongst whom are the following: Dr. H. V. Würdemann of Milwaukee, who is the managing editor and publisher, Dr. Nelson Miles Black of Milwaukee, who is the assistant editor, and as coadjutors Dr. Casey Wood, Dr. Charles H. May, Dr. Charles A. Oliver, Dr. Albert B. Hale, Dr. Charles Zimmermann, Dr. William Zentmayer, Dr. Blencome Fryer, Dr. J. Guttmann, Dr. Frank Allport, Dr. Edmond Blaauw, Dr. Mitsiyasu Inonye, and Professor Wicherkiewicz, with, as contributor from England, Mr. Claud Worth. The present number leads off with seven original articles which have the following headings: (1) The Consequences of Ophthalmic Error, by Professor Dr. William Schoen of Leipsic; (2) the Pathological Results of Dextrocularity and Sinistrocularity, by Dr. George M. Gould of Philadelphia; (3) Hysterical Asthenopia, by Dr. H. Manning Fish of New Orleans; (4) Saccharine Saline Injections in Ophthalmic Practice, by Dr. L. Webster Fox of Philadelphia; (5) Blepharorrhaphy (Tarsorrhaphy), by Dr. Albert B. Hale; (6) Acute Dacryoadenitis, by Dr. Albert Snell of Rochester, N.Y.; and (7) the Relation of Diseases of the Eye to those of the Teeth, by Dr. Wendell Reber of Philadelphia. These are followed by abstracts from numerous journals arranged topographically and, finally, a few pages are devoted to reviews of recent works. We wish our contemporary every success. It commences propitiously what we hope will prove a long career and we trust that it will receive in England what it deserves—success.

The *Christmas and New Year Greeting Cards and Calendars* produced by Messrs. Raphael Tuck and Sons, of Raphael House, Moorfields, E.C., of which we have received a goodly assortment, are as endless in variety this season as of old and their artistic merits are well maintained. In the collection before us is material to suit the tastes alike of men and maidens, youth and old age, at the moderate prices introduced by these pioneers of high-class mechanical reproductions in colours. Among so much which is so good in conception and so meritorious in execution it is not necessary to single out any particular series for special commendation; the whole output is excellent. We may mention, however, our appreciation of the picture postcards of the old-fashioned "Christmassy" character, with holly leaves, berries, and robins.

Analytical Records
FROM
THE LANCET LABORATORY.

(1) HYDROZONE; AND (2) GLYCOZONE.

(CH. MARCHAND, NEW YORK, AND LAMONT, CORLIS AND CO., 11, QUEEN VICTORIA-STREET, LONDON, E.C.)

(1) Hydrozone is a powerful solution of peroxide of hydrogen, for according to our analysis it is capable of yielding more than 25 times its volume of oxygen. In spite of this amount of oxygen the preparation is quite stable under ordinary conditions. To whatever therapeutic uses hydrogen peroxide may be applied with advantage, its action may be referred to its oxidising property and to its germicidal effects and more attention might be given to these points, since, unlike so many antiseptics, it is practically harmless to the organism. Hydrogen peroxide has been used in gastric disturbance, in diabetes and rheumatism, and its vapour has been used in pertussis. For medicinal application hydrozone is specially suitable on account of its purity and strength, but in saying this we must point out that its claims as a medicinal agent are ridiculously exaggerated by its promoters. We have received a number of American publications on the value of hydrozone in disease and according to this literature there does not appear to be any single pathological condition in which it is not useful. Such statements deservedly bring the preparation into contempt, and, after all, the medical practitioner, should he choose to employ hydrogen peroxide in clinical practice, is not bound to the use of a special preparation of it. (2) Glycozone is described as a chemical combination of peroxide of hydrogen

and glycerine obtained by submitting glycerine to the action of ozone. We found that it evolved oxygen and there was a considerable pressure of oxygen in the bottle containing the preparation. It is said to have a powerful oxidising action, a statement, however, which received little support from the results of our experiments. It failed, for instance, to oxidise chromic acid to perchromic acid in the same way as does peroxide of hydrogen.

TEMPLAR'S ALE.

(MAX HARTVIG, 46, 48, 50, BERMONDSEY-STREET, LONDON, S.E.)

This ale is practically a malt extract and contains less than half per cent. of alcohol. The malt extractives amounted to 12·36 per cent. of which 7·80 per cent. was due to malt sugar. The preparation is, in fact, a nourishing ale without any appreciable quantity of alcohol. In spite of the process employed by which alcohol is eliminated the ale is quite palatable, possessing a good flavour of malt and hops. The ale is pleasantly brisk.

MONSTED'S "SHORTENING."

(OTTO MONSTED, LIMITED, SOUTHALL, MIDDLESEX.)

This is admittedly a substitute for butter or lard for use in pastry making. It consists almost entirely of vegetable fat and is practically free from water and salts. To the taste it is somewhat sweet. The melting point was 44° C., whereas that of butter is 37° C. and that of lard is 39° C. There can be little doubt that this "shortening" is wholesome and serves a useful purpose. We prefer good butter.

"LACRIMA CRISTI" VINEGAR.

(COSENZA AND CO., 95, WIGMORE-STREET, CAVENDISH-SQUARE, LONDON, W.)

This is stated to be true wine vinegar and to be made in fact from "lacrima cristi" and our analysis is in favour of the statement being correct. The vinegar, for example, contains the acid of the grape and on ignition of the solid matters an alkaline ash remained. The total solid matters amounted to 3·67 per cent., the acetic acid to 2·93 per cent., and the tartaric acid to 0·39 per cent. The vinegar is free from foreign acids and possesses an agreeable aromatic taste and odour. It is an excellent culinary adjunct.

New Inventions.

THE "SODA STREAM" SYSTEM FOR THE HOME PREPARATION OF AERATED WATERS.

BY the introduction of the "soda stream" system the home preparation of aerated waters has become simple, clean, and efficient. We have long wondered why it was apparently not possible to apply the steel tube or cylinder of compressed carbonic acid gas directly to the domestic preparation of soda-water. The ordinary tube used in commerce contains gas enough to charge over 1000 pint bottles of water and the cost of the gas would not exceed 6*s*. At any rate, this is how it works out in the "soda stream" system, the apparatus of which consists simply of a tube of gas, a special adapter by means of which the gas is delivered into the bottle, provided with a small expansion chamber fitted with a spring and relief valve. There is no danger connected with the use of the apparatus as the pressure in the bottle can never exceed at the most 100 pounds, which is a good deal below that at which the bottles are tested. The secret of success in the "soda stream" system is the use of a small outlet for the gas which breaks up the inrushing gas into myriads of minute bubbles (the "soda stream") which are thus brought into intimate contact with the water. The impregnation effected is thus brisk, air is excluded, and the water is brilliantly sparkling. The manner of charging a bottle of water with the gas shown in the accompanying illustration. The only point that may need explanation is connected with the guard which surrounds the bottle. This guard serves a twofold purpose; first, it protects the operator in case of accident from a bottle exploding; and, secondly, its weight serves as a lever valve operating a relief valve. When the guard is down it presses upon a spring which keeps the relief valve closed, so that a pressure of some five or six atmospheres in the bottle may be attained. Any gas in excess of this is automatically blown off. To charge a bottle of water with the gas the bottle is first attached to the apparatus by means of a screw surrounding the upper part of the impregnating

tube. The guard is then dropped. Next a few sharp turns of the wheel valve of the gas cylinder are made and the gas streams through the water. With a pint bottle of water some ten or so turns of the wheel valve suffice to produce a briskly sparkling aerated water. After the last turn the guard is gently lifted, by which the relief valve is released and all excessive pressure escapes; the bottle is then unscrewed and a screw stopper is inserted. It is quite easy to make a dozen bottles of soda-water in this way in less than ten minutes and at a cost of not more than 1*d*. per dozen bottles. The apparatus is particularly valuable for medical and hospital use, as it is obviously a simple matter to prepare medicated waters in this way. Lemonade, ginger beer, and other non-alcoholic beverages may be prepared with similar ease. But one of the greatest advantages of the system is that the consumer can be sure not only of the purity of the water used for the purpose but also of the cleanliness of the bottle into which it is put. We may add that we have carefully submitted to analysis the gas used in the "soda stream" system with the result that we found that it contained, according to three tests, 99·80, 99·90, and 99·78 per cent. of carbonic acid gas respectively. The apparatus is supplied by Soda Stream, Limited, of James-street, Camden Town, London, N.W.

THE Middlesex Hospital students' smoking concert in aid of the cancer charity of the hospital will be held at the Queen's Hall, London, W., on Friday, Dec. 9th, at 8 P.M., Major-General Lord Cheylesmore in the chair. By the kind consent of their various directors and managers a large number of well-known artistes have kindly consented to appear. On a circular just issued announcing the concert we have counted the names of over 20 ladies and over 50 gentlemen who will benevolently assure the success of the entertainment. Tickets at 5*s*., 3*s*., and 1*s*. each may be obtained at the Queen's Hall box office or from Mr. R. E. Apperly, Mr. P. W. Mathew, and Mr. A. Pfeiffer, honorary secretaries, at the hospital, Berners-street, W.

THE LANCET.

LONDON: SATURDAY, DECEMBER 3, 1904.

Medical Men and the Subpœna ad Testificandum.

A TRIVIAL action conducted by the plaintiff and the defendant in person before Mr. Justice LAWRANCE and having for its subject matter an alleged contract to make known a supposed "remedy" for consumption would call for no comment from us but for one circumstance. Early in the case the judge said that he had learnt that Sir WILLIAM BROADBENT had been subpœnaed as a witness and he told the plaintiff, an elderly lady, that as Sir WILLIAM BROADBENT wished to go away she had better put him in the witness-box at once. Sir WILLIAM BROADBENT was accordingly sworn. He had no evidence whatever to give in the plaintiff's favour. He had no information as to why he was called and no knowledge relating to the case except that he had had communications of some kind with the plaintiff in the course of which he had told her that her remedy was worthless. After he had deposed to the above effect he was of course allowed to leave the court. This is, no doubt, an extreme instance of the abuse of the subpœna, but it shows that medical men and others may regard the legal document which commands their attendance to give evidence with undue reverence and suggests that some explanation of its powers and of its limitations may be useful. Attention has recently been called to the liability of medical men to be called as witnesses without compensation for their loss of time by the letter of Mr. MALCOLM M. MCHARDY in THE LANCET of Nov. 5th and by the subsequent correspondence which it elicited.[1] His complaint, however much it may have been justified in the instance to which he referred, points to a class of case differing from that in which Sir WILLIAM BROADBENT was a witness. A patient treated in a hospital may have a just claim for compensation against somebody on account of a serious and possibly permanent injury, preventing him for some time, perhaps for the rest of his life, from earning his bread in his usual occupation. It would be a great hardship if, because his poverty caused him to have recourse to a hospital, he was thereby debarred from obtaining the assistance of medical evidence as to the nature and extent of his injuries. Mr. MCHARDY'S letter does not enable us to say how much or how little this observation applies to the instance of which he wrote, but in considering the effect of the subpœna it will be seen that each case must be weighed and decided upon by the witness summoned according to its individual facts.

We leave criminal trials out of the question. It is the duty of the citizen to assist in the administration of justice in courts where crime is being investigated and however hardly it may press upon them we advise medical men not to neglect that duty. In civil causes it is different and our correspondent, "Experto Crede," in general terms has put the case correctly.[2] The person served with a subpœna to give evidence in a trial where he has nothing to say that can reasonably be held to be material can safely disregard it, because the party whose witness summoned by subpœna does not appear has practically only one remedy open to him. He may bring an action against the person not answering when "called on his subpœna" and may recover as damages such loss as he may prove to have resulted to him from the missing witness's absence. We have said that "Experto Crede" has stated the law with general correctness but at the same time the power "to attach" a witness not obeying a subpœna exists and upon such an occasion as that to which Mr. MCHARDY referred the medical man is to some extent a witness of fact, although his opinion as a "skilled witness" may also be asked. In the county court also the judge can punish for a refusal to attend and has power to inflict a fine of £10. No judge, however, would exercise his authority thus unless satisfied that the witness had by an inexcusable refusal to give evidence treated the court with contempt and prevented justice from being done. The medical man, therefore, who has been subpœnaed to give evidence and who has satisfied himself that his duty towards his patient does not require that he should do so has practically only one risk to consider. He will bear in mind that in order to sue him with success the person who does so will have to prove what his evidence would have been and also that the withholding it had an injurious effect upon his case, as, for example, that it would have increased or diminished the damages awarded. It requires very little reflection to see that, as a rule, proof of these two essentials would be very difficult, if not impossible, and actions of this kind, though not unknown, are consequently rare. We would suggest as a precaution to a medical man subpœnaed without good cause that he should write to the solicitor or other person responsible for the subpœna explaining firmly but courteously that he has no evidence to give and requesting to be released from any obligation to attend. If a letter to this effect can truthfully be written he will run no serious risk in afterwards absenting himself from the trial and the person receiving such a communication, if he takes further action, may be in danger of finding it proved that he abused the process of the court in having recourse to a subpœna and to such rights as it confers. It is, in short, a document which must not be treated lightly by anyone but, on the other hand, it is one which is looked upon by many who receive it and, perhaps, by some who serve it on others as being endowed with a mysterious potency which in fact it does not possess.

[1] THE LANCET, Nov. 5th (p. 1315), 19th (p. 1450), and 26th (p. 1526), 1904.

Identification as Illustrated by the Case of Mr. Adolf Beck.

THE blue-book which records the evidence taken in the recent inquiry into the case of Mr. ADOLF BECK, together with the report of the Commissioners thereon, is an interesting and a very disquieting document. The grievous wrong done to Mr. BECK, brought about and perpetuated by the

[2] THE LANCET, Nov. 26th, 1904, p. 1526.

mistakes of women and police officers, the self-confidence, as we must term it, of Sir FORREST FULTON, and the complacent incompetence of minor officials at the Home Office, has been discussed at great length in the public press, and now the feeling of uneasiness caused by the story is considerably augmented by reading the evidence set out in detail, by comparing the facsimiles of the handwriting of Mr. BECK and of the real criminal SMITH, and by studying the records of the physical peculiarities of these two men.

With the legal points raised and with the question of identity of handwriting, interesting as these are, we do not trouble ourselves. The question of physical similarity is, however, one with which medical men are concerned, because they are better qualified than others to appreciate the points of resemblance which may exist between two persons' bodies and the points of dissimilarity which must conclusively separate their identity. Medical men will no doubt be of opinion that if innocent persons are liable to be imprisoned as convicts who have been previously sentenced proper evidence of the physical peculiarities of all convicts should be recorded either under the supervision of a medical man or at least by persons trained to take measurements of the human frame accurately and to record marks upon it in appropriate terms. When a man is sentenced to undergo a term of penal servitude, which may be for life and cannot be for less than three years, there is ample opportunity to do all this, and even when the sentence is a shorter one the time is in every case sufficient. The finger-print system affords an excellent method for indexing and cataloguing criminals, even though it may not be as infallible a one as was originally claimed, but it should, of course, be supplemented by other corroborative particulars. Mistakes as to Mr. BECK's identity were made by two classes of persons—by the credulous and venal women whom SMITH had cajoled into parting with their trinkets and by police officers and prison officials. The general similarity between the two men does not seem to have struck independent observers in the same way, some finding it considerable and some infinitesimal; but the blue-book before us records the observations made as to particular points. Mistakes of identity by those who only go by general appearance are common and this gave weight to a piece of evidence at the first trial of Mr. BECK which is thus described by Sir FORREST FULTON in a letter addressed to the Home Office dated July 13th, 1898. "The witness BRAKEFIELD did not, it is true, succeed in finding the little scar by the right side of the neck under the ear spoken to by her and described as something like a mole, but this was due to the fact that in the dock he was wearing a collar and scarf, whereas at the time that she saw BECK he was partly undressed. At my instance a more thorough examination was made by the warder who at once found a small scar or mole mentioned in the description. Again at my request BRAKEFIELD looked at this mark and said, 'Oh, yes; of course that's it.' To my mind this in itself was a most damning piece of evidence." Sir FORREST FULTON'S account of what took place on this occasion differs from that given in the Sessions Papers report, which he wrote to correct, and from that given by Mr. BECK himself, but we will assume his recollection to be correct. We thus find that a mark described as either a scar or a mole, which could only be discovered with the aid of a warder, and the locality of which the woman did not remember sufficiently to say that it was concealed by the prisoner's collar, was accepted as a valuable piece of corroboration, although it was the essential feature of the defence that the woman's observation was inaccurate and not to be relied upon. We need only add that the coincidence of a "scar or mole" so found would have convicted many men beside Mr. BECK had they been placed where he was and that the observation of his physical attributes by the police and by the prison authorities was no more scientifically exact than that of Mrs. BRAKEFIELD. Mr. BECK, having been duly convicted as SMITH, did not go through the whole of his sentence of penal servitude, inflicted in 1896, as SMITH. He was identified as SMITH by the police before the magistrate and he was marked as a convict formerly in prison at Portland, but this was altered so far as the prison badge was concerned because he established the fact that SMITH was a Jew and that he himself had never been circumcised. Apparently but for the circumstance that he had not undergone this by no means uncommon operation, which needless to say is not confined to Jews, he might never, not even now, have convinced the police and the warders that he was not SMITH.

The account in the blue-book of SMITH'S marks when compared with Mr. BECK'S as they appeared in the prison records should be noted, for they enable us to see what opportunity there was for distinguishing the two men apart from circumcision and non-circumcision. We find that JOHN SMITH had a dark complexion and brown eyes and that Mr. ADOLF BECK had a fresh complexion and blue eyes, two points which illustrate admirably the value of the observation of the female witnesses. Turning to other marks, SMITH was noted as having on his right side "scar bottom lip, scar upper part of nose, scar jaw, two vaccination marks, scar outside arm, mole arm-pit." Mr. BECK had "long scar front of upper arm, scar head, small mole neck and nape of neck, boil scar above shoulder blade, slight scar front shin." We need not go through the marks on their left sides which were equally different in the two men, although the distinctions between them would have been made clearer had they been less loosely recorded. It would have assisted the prison officials, for example, even though circumcision had been observable in both men, had the "scar outside arm" of SMITH and the "long scar front of upper arm" of Mr. BECK been measured and their position described in anatomical terms. But nothing of the sort seems to have been done. In the case of Mr. BECK a loose and inaccurate system would have been better than none had there been anyone intelligent enough or industrious enough to make use of it. It must not be forgotten that Mr. BECK was all the time protesting his innocence and denying his identity with the man who has since pleaded guilty to the offences of which Mr. BECK was twice convicted. In these circumstances we cannot view the report with the complacency that some of our contemporaries have been able to show. We agree, and record with pleasure, that there is not a scrap of evidence that any conspiracy among the police existed against Mr. BECK. But the idleness and inefficiency that have been revealed in high places

should be to our minds a source of the gravest public anxiety.

Epidemic and Epizootic Plague.

THE report of the elaborate and careful inquiry into the epidemic and epizootic features of plague made by Dr. WILLIAM HUNTER, the Government bacteriologist in Hong-Kong, was published by the Hong-Kong Government in June, 1904, in the form of a Blue-book. The special points dealt with in the report are the septicæmic nature of plague generally, the channel by which the infection finds access to the human body, and the relation of the appearance of plague in rats and man. It has been hitherto believed that the plague bacillus appeared in the peripheral blood a few days only before the fatal termination of a case of the disease; that the bubonic was the typical variety of plague; that the bubo was an early manifestation of infection; and that gastro-intestinal lesions were of quite secondary import in cases of plague. If we are to adopt the conclusions come to by Dr. HUNTER all these accepted notions must be modified or wholly laid aside, for the results of his observations and experiments are totally at variance with such beliefs. The plague bacillus has been shown by Mr. J. BELL of the Government Civil Hospital, Hong-Kong, to be present in the peripheral blood from the initial stages of the disease. The application of Ross's method of examining the blood in malaria to the examination of the blood in plague has succeeded in showing that during the first or second day of illness from plague the bacillus can be found in numbers in the peripheral blood, in fact, before the bubo develops. Mr. BELL'S observation is substantiated by Dr. HUNTER and we are thereby face to face with a new fact in the pathology of plague and one which altogether upsets the preconceived notions of the disease. We have hitherto regarded the bubo in plague as a specific lesion, as an early if not an initial manifestation, and the septicæmic condition as a secondary incident. The bubo was looked upon as an effort of the gland to arrest the course of the bacillus and to prevent its reaching the blood. According, however, to Dr. HUNTER'S showing, plague is primarily a septicæmia and the fact of the disease subsequently assuming the bubonic, pneumonic, or septicæmic form is a secondary matter. On the face of it this suggestion is much more in accordance with modern pathological facts and when in addition to the suggestion we have chapter and verse for arriving at a conclusion in the matter we may be in danger of allowing credence to exceed our judgment and to become unwarrantably imbued with the idea. So convinced is Mr. BELL of the correctness of this view of the nature of plague that he states that he has examined numbers of cases on the first or second day of the illness and that plague can be diagnosed almost as easily as malaria.

The channel by which the plague bacillus is conveyed to the human body is in the great majority of cases, according to Dr. HUNTER, by way of the gastro-intestinal tract and the evidence which he brings forward in favour of this statement is well-nigh overwhelming. He ascribes opposite opinions to faulty clinical observations. Were cases of plague seen at the earliest stages of all—namely, before even feverish symptoms have developed—Dr. HUNTER states that in the vast majority of instances diarrhœa and vomiting would be found to play a conspicuous part in the history of the illness. Several instances are recorded in which the patients applied for relief from diarrhœa, colic, and vomiting with constant watery stools, fever subsequently developing and being followed by a well-marked attack of plague. Experiments on animals also indicated this form of attack and, so far as clinical observations go, the idea that plague reaches the human body by way of the alimentary canal would appear to be well founded. Pathological evidence also is not wanting in support of a similar conclusion and there seems scarcely a loop-hole by which to escape from the belief that the mucous surface of the intestinal tract plays an important part in the absorption of the plague bacillus. That the bacillus may also gain access to the body by way of the skin is well illustrated in the case of a man who developed a local lesion and subsequently infection of the blood from a wound of the hand during the performance of a post-mortem examination on an animal dead from plague. Dr. HUNTER also contends that pneumonic plague may be primary—that is, that the plague bacillus may be inhaled and may set up a train of septicæmic changes. The importance of the possibility of infection by way of the alimentary canal in plague can hardly be over-estimated. Seeing that almost all domestic animals contract plague, that birds are subject to the disease, and, as proved by Dr. HUNTER, that flies, cockroaches, and other non-suctorial insects harbour plague bacilli both upon and within their bodies the contamination of food would follow as a natural consequence. Dr. W. J. R. SIMPSON has proved the possibility of conveying plague to animals by way of food, and since Dr. HUNTER has shown that flies and cockroaches carry plague bacilli on their bodies and that the mere contact of these insects with human food is sufficient to contaminate it, the medium of infection is at once evident. The part played by rats in plague has been carefully studied by Dr. HUNTER. There can be no doubt that rats are the most susceptible of all animals to plague and that they and man are liable to an identical affection. Still, much remains doubtful as to the actual relationship in regard to cause and effect between plague in rats and the appearance of the disease in human beings. On one point, however, there seems definite proof—namely, that epizootic plague always precedes epidemic plague; that the time between the initial cases of plague in the rat and in man is from 10 to 14 days; and that the disappearance of the epizootic is followed within a week or two by the subsidence of the epidemic.

An interesting section of the report is entitled "The Bridging of Epidemics." Dr. HUNTER shows that plague in rats is present throughout the whole year but the disease becomes widely spread at certain times of the year—in Hong-Kong during the first quarter of the year and within a week or a fortnight it also becomes epidemic. Throughout the epizootic period the type of plague amongst rats is acute, but subsequently to the epizootic and epidemic periods plague in rats is met with in a chronic form only. During the interval between epidemics plague in rat

is present but the type of the disease is chronic. It is, in fact, chronic plague in rats which serves to bridge over epidemic plague and the obstinate clinging of plague to any particular area and its periodical recrudescence are occasioned through chronic plague in rats. During the interval of the epizootic about 75 per cent. of the rats caught alive and found to be infected suffer from chronic plague and the recrudescence of plague in rats in acute form would appear to depend upon the infection of fresh generations of rats, the young animals being highly susceptible to infection by plague. Human plague is epidemic only during the acute exacerbations of the epizootic and disappears or diminishes whilst chronic plague is present amongst rats. We have confined our remarks to the leading points only in Dr. HUNTER'S admirable exposition on plague. Throughout the 107 pages composing the report every page is interesting and we must view plague from a new standpoint after the enunciation of the facts and observations contained in the report.

Annotations.

"Ne quid nimis."

THE PROBLEMS OF HOSPITAL ABUSE.

WE publish at p. 1587 of this issue of THE LANCET, in the form of an essay, a speech made by Dr. Lauriston E. Shaw at a recent meeting of the Brixton Medical Society upon the difficult subject of hospital abuse. Dr. Shaw, who clearly had his subject at his fingers' tips, did not waste time in detailing the proofs of the existence of this abuse—nor shall we. It has been incontestably demonstrated that our hospitals, especially in their out-patient departments and in great cities like the metropolis, are laid under contribution by persons who have no right to the treatment that they seek. Some applicants for assistance have a pecuniary position which makes it a fraud upon the public, as well as upon the hospital and the medical profession, that they should receive gratuitous service. Some are the victims of chronic or trivial ailments which need no hospital advice. Some in their own interests should not attempt to endure the exposure to weather and the chances of delayed attention which are inevitable in the present congested condition of the out-patient department of large general hospitals. To keep the out-patient department clear of such patients so that the really necessitous sick can obtain the prompt and suitable attention that may quickly restore the invalid to the position of the breadwinner is the ideal kept before them by all hospital reformers, and, as is well known, their efforts have so far been mainly directed towards stopping the application of the well-to-do for charitable medical help. Dr. Shaw in his interesting paper suggests that the proposed measures to this end, as they have been laid before the medical profession at different times, have been wrongly directed, for the essence of all of them is the investigation of the patients' home circumstances and for this the machinery cannot be available. Dr. Shaw would contend that the *personnel* required by the hospital to inquire into a patient's social position and domestic environment would be as large as that required to diagnose and to treat his physical ills. Where are hospitals to find money to pay for such service? And how is it to be effectively rendered? Failing to find an answer to these questions Dr. Shaw has looked elsewhere for the remedy and suggests the formation of a comprehensive provident scheme by which provident societies would form a sort of filter, stopping and retaining for treatment all the cases for which the hospital attention is unnecessary or unsuitable for various reasons, and letting through the specialised class where the sick are clearly fit and proper subjects for a gratuitous consulting opinion. We have read Dr. Shaw's suggestive remarks with the greatest interest and although we see many embarrassments ahead we recognise that his idea is that of a thoroughly shrewd and competent observer. His speech before the Brixton Medical Society was inspired by the impending removal of King's College Hospital to South London. The medical men of the district contiguous to the new site of the hospital wish to prepare a scheme by which, when the great charity is planted in their midst, full advantage may be reaped by the public. A committee of general practitioners in South London is now, we believe, in course of formation, and doubtless the merits of Dr. Shaw's scheme will be fully gone into. The coöperation of the existing provident societies with the large general hospitals is also in the near future to be the subject of a conference intended to elicit what practical steps can be taken to make the provident system and the charitable system work in unison. If provident associations can be so constructed that the really poor receive gratuitous treatment while others pay for medical service in accordance with their means, and if at the same time such associations can remunerate medical men upon an adequate professional scale while relieving the out-patient departments of the general hospitals of a mass of unsuitable cases, then the various problems of hospital abuse will be in course of solution. There is much that is conditional in all this, and the difficulties in getting provident associations to work in so exactly convenient a manner may be very great. It is not possible as yet to do more than to express a hearty wish that practical results may follow upon any organised efforts against hospital abuse that the medical men of South London may devise.

ANNUAL MEETING OF FELLOWS AND MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

IT must be acknowledged that there was little new to be heard at the late annual meeting of the Fellows and Members of the Royal College of Surgeons of England. The same agenda were on the notice paper, couched almost in the same words, and, at all events, embodying the identical ideas as at the last 19 meetings. Even some of the speakers were the same as those who year after year from the very beginning of these meetings have advocated the cause of the Members. Yet the tone of the speeches has undergone a change. In the early years was noticeable an accent of triumph at having persuaded the Council of the College to grant the privilege of these annual meetings. Later was to be heard chiefly a tone of indignation that the yearly appeals to the Council were in vain, that all the energy put forth by the Members should meet only with the invariable answer that nothing could be done. This year, however, it seemed to us that a feeling akin to despair had invaded the minds of the speakers. 20 years of exertion have resulted in nothing; the hopes so widely entertained 20 years ago have brought no fruit, and a suspicion seems to have arisen that if all these years have been spent in vain it may perhaps be that the Members will never possess the rights for which they have so ardently hoped, so valiantly striven. There are more than 16,000 Members and more than 1200 Fellows and yet when the hour for the meeting arrived the number present was not sufficient to make up the small quorum of 30. Can it be that the Members are apathetic: that they have ceased to care for, ceased to strive for, those privileges which they have, even from the very time of the charter of 1842, looked upon as their rights? No, we cannot believe it. Dear to the hearts of

all the Members is the feeling that they are indeed an integral part of the body corporate of the College, that their rights entitle them to a share, some share at least, in the government of the College, some representation on the Council. They acknowledge that by the present charter their claims cannot be legally enforced, that the law does not recognise that they have any claim at all. Morally, however, their claim is indisputable; historically they are in an unbroken pedigree the descendants of the members of the Corporation of Surgeons; and no unprejudiced mind would deny the reasonableness of the claims which they advance. The present apparent apathy on the part of the Members is explained by the lack of success hitherto achieved. Nothing is so depressing to the adherents of any cause as persistent failure unvaried by the least glimmer of success. Many of the Members recognise that these annual meetings are only occasions for the expression of pious opinions which the Members cannot enforce and which may have not the faintest influence on the Council of the College. It is only by the goodwill of the Council that these meetings are held at all; at the will of the Council they were established, at the will of the Council they could be done away with to-morrow. The high hopes entertained when these meetings first commenced were in great part ill founded. It is something for the Members to be able to meet the Council face to face once a year; it is something to be able to give utterance to the feelings of indignation which they have in their hearts and to be able to listen to the explanations of the President, but more than this these meetings cannot be expected to afford. In spite of the former tendency to overvalue the annual meeting it must be recognised that there is now an equal danger to undervalue it. It is nothing more than the first step towards the recognition of the Members, but it is the first step. More will come later and it is essential that the Members should not lose heart. At the present time the President of the College is one who has always consistently advocated the reasonable claims of the Members and we are sure that he has at heart the fulfilment of their expectations. Many of the Council, too, look with approval at the institution of some method by which the Members shall take part in the management of the College. That the problem will be solved somehow before long we do not doubt; the difficulties that have to be overcome are many, and time is even yet required to wear down the unreasonable prejudices of those who appear to look upon the Member as a being of an inferior order of creation. It will, however, not be long, we may hope, before the Members take their due share in the control of the affairs of the College and we look forward to the day when this hope shall be realised, for then indeed the Royal College of Surgeons of England will take its rightful place as the true representative of English surgery and will be able to exert far more influence for good than at present.

SMOKE AND FOG.

IN an annotation in THE LANCET of Nov. 26th, p. 1515, we drew a few lessons from the prevalence of fog in London and expressed the opinion based upon the meteorological conditions of the whole of these islands that it would be hopeless to expect to exclude those vagaries of weather which conspire to produce fog from operating in the London area. We are at the mercy of the wind and we are forced to leave both the prevention and cure of fogs to that great natural agency. If it prevails there is no fog; if it ceases we may at any moment in the winter be cast into a darkness as of night. We can, at any rate, do our best to prevent the fouling of fog, for we fortunately have a provision in the Public Health Act, 1875, by which the output of black smoke from chimneys (not being the chimneys of a private dwelling-house) may be suppressed. It is a pity, by the way, that the Act defines that to constitute a nuisance the smoke must be black. Smoke may be very offensive when it is yellow or even blue, and it contains just as much as black smoke those nuclei around which the formation of fog or vapour most actively takes place. We believe we were the first to point out (and we may refer to THE LANCET of Sept. 21st, 1895, p. 743, in proof of what we write) that though the Public Health Act was intended to prevent the nuisance arising from smoke, yet its provisions were seldom seriously enforced. Since that time the Coal Smoke Abatement Society, at the instance of Sir William B. Richmond and others, has been organised and it is pleasing to record that this society, in the comparatively short period of its existence, has done an immense amount of good for the London public. Its good offices in this direction could be very materially extended if only its well-directed energies were backed by our municipal authorities, to say nothing of the Local Government Board. In a letter addressed to us by Sir William Richmond on behalf of the Coal Smoke Abatement Society he states that not only the corporation of West Ham but the Local Government Board have for a long time past neglected their statutory duty to prevent the emission from factory chimneys of black smoke, so as to be a nuisance within the meaning of the Act. Between May, 1901, and October, 1903, the Coal Smoke Abatement Society forwarded to the West Ham corporation (as the sanitary authority to enforce the law under the Public Health Act) no less than 572 reports of serious emission of black smoke from factory chimneys in that district. No action whatever has been undertaken by the corporation on the existence of these offences being represented to that body by the Coal Smoke Abatement Society. We believe that the district referred to—namely, that which includes a part of Bow, the whole of Stratford, and West Ham—contributes more to the offensive colouration of London fogs than any other district so close to St. Paul's. The matter has been represented to the Local Government Board which, if it has done anything at all, has done it very listlessly. It is scandalous that, in the words of Sir William Richmond, "nothing has been done to lift the black pall of smoke from the district or to prevent its shifting at intervals to this great metropolis." Public health and opinion demand a better account from the constituted authorities.

A CURIOUS DECISION UNDER THE SALE OF FOOD AND DRUGS ACTS.

A GROCER at Clapham was summoned at the South-Western police-court on Nov. 19th for selling as cocoa a substance containing 70 per cent. of sugar and sago. There was a notice on the packet to the effect that it contained a mixture but Mr. Garrett, the magistrate who tried the case, pointed out that it was no larger than a postage stamp and was inside the wrapper. Nevertheless, he dismissed the summons, accepting not only the excuse put forward by the defence that the notice if outside the wrapper might become obliterated but two other contentions raised, the first being that the proportion of 70 per cent. of foreign matter was not unreasonable, and the second that the article was not sold to the prejudice of the purchaser because the inspector knew what he was buying. One of the witnesses called for the defence, Mr. Cushion, the "chairman of the Grocers' Association and treasurer of the Federated Societies," had deposed that the public knew perfectly well what they were buying when they asked for cocoa at the price at which the article in question was sold, and the inspector of the borough council had said in cross examination that at the price he did not expect to obtain pure cocoa. The views of a chairman of a grocers' association as to what poor people "know" when they buy their groceries can

hardly be regarded as independent and unprejudiced testimony on such a subject, and what an inspector under the Sale of Food and Drugs Acts expects to obtain when he buys for the purpose of carrying out his duties is obviously irrelevant. He buys because he suspects adulteration and he is expressly exempted from the provision of the Act that the goods complained of must have been sold to the buyer's "prejudice." The second section of the Sale of Food and Drugs Act, 1879, says that "in any prosecution under the provisions of the principal Act for selling to the prejudice of the purchaser any article of food or drug which is not of the nature, substance, and quality of the article demanded by such purchaser, it shall be no defence to any such prosecution to allege that the purchaser having bought only for analysis was not prejudiced by such sale." This places the inspector in a different position from that of the ordinary citizen buying from the dealer for his own use. The argument raised before Mr. Garrett and endorsed by him would be, put in other words, that as there are no express words to the contrary in the Sale of Food and Drugs Acts an inspector may only buy for the purpose of analysis and prosecution when he has no reason to believe that there is anything wrong and must not do so when he knows or has good ground for suspecting that adulteration is taking place! This would stultify the Acts in question and would be a good defence to a large number of prosecutions, so perhaps the point will be raised again and decided, if necessary, by a higher court.

THE FIFTH YEAR OF MEDICAL STUDY.

WE have received a very clever pictorial illustration to that part of Mr. Edmund Owen's admirable address at the Leeds Medical School on William Hey and Medical Education (published in THE LANCET of Oct. 22nd) which dealt with the way in which the fifth year of study had been frittered away. The illustration to which we refer is upon the large card programme of a smoking concert which was recently given in the refectory of the School of Medicine of the University of Leeds, Professor C. J. Wright being in the chair. The sketch shows a

heavily laden vehicle being drawn up a steep bit of road by four over-worked horses representing the four years of medical study under the old system. Tethered behind the vehicle is a sorry jade labeled "5th year"—a miserable example of wasted energy. The artist, Mr. Frederick Reynolds, has apparently followed the text of Mr. Owen's address very closely, for, filling the body of the wagon and forming a considerable proportion of the educational load, appear enormous packages of physics, pharmacy, chemistry, vaccination, and biology. Piled up upon these are public health, pathology (a very large parcel), bacteriology, pharmacology, anæsthetics, ophthalmology, fevers, and at the giddy top of everything a barrel labeled "Lunacy," which looks as if it were certain to roll off. By-the-bye, upon the tail-board of the cart is balanced a coffin, representative of post-mortem work. By this clever sketch Mr. Reynolds shows himself to be a worthy disciple of the late George Cruikshank and we venture to express the hope that his pictorial wit may not be without effect in drawing attention to the unsatisfactory way in which the fifth year of study has been permitted to run to waste.

FROM A BLOW ON THE HEAD OR FROM SMOKING?

A BRICKLAYER'S labourer named Johnson recently claimed compensation in the Manchester county court for an injury from a brick falling on his head while he was at his work. It was stated that a month after the accident he still suffered from dizziness and defective eye-sight due to the injury. Two medical men certified that he was no longer suffering from the effects of the accident and his employers had therefore stopped the payment of his wages. One of the medical men said that the plaintiff had well-defined symptoms of tobacco blindness and he admitted smoking one and a half ounces of tobacco a week. Judge Parry asked the witness whether he thought that that quantity would produce such symptoms. He replied that in a man of the plaintiff's age and condition smoking half an ounce a week might do so, whereupon the judge said: "Some of us will have to amend our ways then, I think." The matter has been referred to Dr. A. Emrys Jones who was asked to state whether the plaintiff was suffering from the effects of the accident or from tobacco smoking and if from the former how far the injury interfered with his power of working. The report has not yet been made public.

TRANSMISSIBILITY OF AMŒBIC DYSENTERY IN EUROPE.

IN recent years two varieties of dysentery have been distinguished—one due to a bacillus (termed Shiga's bacillus after the Japanese pathologist who described it, though an organism apparently identical was previously discovered by Chantemesse and Widal), and the other due to an amœba. Bacillary dysentery is the form of the disease which occurs in temperate climates though it also occurs in warm climates. On the other hand, amœbic dysentery is a disease of warm climates. At the meeting of the Société Médicale des Hôpitaux de Paris on Oct. 28th Professor Dopter of Val-de-Grâce brought forward cases to show that in France, contrary to what was supposed, amœbic dysentery may be transmitted from patients who have contracted the disease abroad. He related five cases of soldiers in colonial regiments who had never been abroad but who evidently contracted amœbic dysentery from comrades who were infected in tropical countries. In one case a soldier, aged 23 years, was admitted into hospital suffering from dysentery. Microscopic examination of the stools showed numerous very mobile amœbæ which were crammed with red corpuscles. The bacillus of dysentery could not be found and the agglutination reaction for it was negative. Intra-rectal inoculation of a young cat produced typical dysentery from which it died after presenting amœbæ in its stools. Sections of the large intestine showed amœbæ in the glands of Lieberkühn. Inquiry revealed the fact that in the same company as the soldier was a man who slept in the same room, separated by two beds and suffering from a relapse of amœbic dysentery contracted in Cochin China. In the other cases the disease appeared to have been contracted similarly from soldiers sleeping in the same room. The diagnosis between the two forms of dysentery is important both from the standpoint of prognosis and of treatment. Bacillary dysentery is of rapid evolution. In

two or three weeks at most it terminates in recovery or death; relapses are rare; it is never followed by abscess of the liver. The evolution of amœbic dysentery is slower, tending to chronicity; relapses are frequent and often multiple; it is frequently complicated by abscess of the liver. Bacillary dysentery may be rapidly cut short by means of injections of the serum of a horse immunised to the bacillus. On the day after injecting 20 cubic centimetres into some patients Professor Dopter found that the stools, which in the preceding days numbered from 35 to 95, fell to 10 or 15 and on the following day to two or three and then to one completely normal stool. In amœbic dysentery the treatment consists of the administration of purgatives and intestinal antiseptics. The only trustworthy method of diagnosing between the two forms of dysentery is by bacteriological examination, which may be performed by microscopic examination of the stools soon after evacuation revealing motile amœbæ full of red corpuscles, by isolation of the bacillus of dysentery, by the agglutination reaction for the bacillus, and by the intra-rectal inoculation of the cat which in the case of the amœbic form produces the disease, and in the bacillary form is negative.

THE POTATO AND THE CHESTNUT.

THE man with the hot potato-can and the man with his red-hot rusty tea-tray riddled with holes, on which the chestnuts are grilling over a perforated iron box filled with glowing coke, are a source of much cheer on the cold winter nights to the "man in the street," and we should be sorry to see these two time-honoured institutions abolished. In what club, restaurant, hotel, or home can be found potatoes so admirably cooked as those in the street potato-can, or what chestnut is more appetisingly cooked than that which is grilled *al fresco* on the hot tea-tray? It is not very difficult to prove that the potato-can man and the chestnut man are distinct benefactors, at least, to a certain section of the public, for they provide cheap, good, and excellently cooked food to the cold and hungry which at the same time comforts and warms, for both the hot potato and the hot chestnut are very often placed in the pockets for the sake of their warmth. It is an interesting fact that the potato and the chestnut have been picked out as practically the only foods offered for sale in this way and on reflection we can see that, after all, this choice is based on sound dietetics. According to a recent analysis of the raw chestnut we find that its composition is as follows:—

Water	53·640	per cent.
Proteid	3·710	,,
Mineral matter	0·870	,,
Fat	2·160	,,
Starch	31·790	,,
Sugar and gum	6·100	,,
Fibre	1·730	,,

The composition of the raw potato is:—

Water	76·700	per cent.
Proteid	1·200	,,
Mineral matter	0·900	,,
Fat	0·100	,,
Starch	19·100	,,
Sugar and gum	1·400	,,
Fibre	0·600	,,

The chestnut contains, therefore, less water, more proteid, more starch, more fat, but less mineral matter than the potato. The chestnut is, in fact, more nutritious than the potato, not because it contains different constituents but because weight for weight it contains a greater proportion of them. The deficiency in fat is made up in the potato by a pat of butter; in the chestnut there is already an important proportion of fat. The chestnut, however, is the most digestible of nuts, because it does not contain an excess of fat. Most nuts contain between 50 and 60 per cent. of fat. Both the chestnut and the potato provide a nutritive meal, rich in heat- and energy-giving material, and the starch in them is peculiarly easy of digestion. For reasons already given the chestnut is dietetically superior to the potato, especially if the latter be boiled, as in the process some of the nutrient materials are lost. In the cooking of both the chestnut and the potato by baking the effect is much the same as by boiling: the natural water of the nut and of the tuber is partly expelled as steam which swells or cooks the starchy particles. Chestnuts lose but little of their nutritive constituents when boiled but they are best baked or roasted, as dietetically also is the potato. It is a pity that the chestnut is not appreciated in this country as it is in France where the peasantry find it a very sustaining and agreeable food. There are enormous quantities of food in the shape of chestnuts wasted in this country and yet it is a particularly economical form of food, for a given area of ground, it is stated, produces the maximum amount of food possible when it is planted with chestnut trees. And so the man with the chestnuts on his red-hot tea-tray conveys a lesson which might be taken more seriously than it is.

ABSENCE OF THE GALL-BLADDER.

WE reprint this week under the heading "Looking Back" an extract from THE LANCET of Dec. 2nd, 1826. From this it appears that no less than 78 years ago it was fully recognised that the presence of a gall-bladder was not essential for life and that a person without this organ might enjoy a good state of health. Although the recorded cases of complete absence of the organ are not very numerous yet there are sufficient of them definitely to prove the thesis mentioned above. Cases have been recorded by Bergman, Sandefort, Ziegler, Home, Eschler, Harle, Patterson, and others. Specimens illustrating this point are also to be found in the museums of St. Thomas's, Guy's, and Middlesex Hospitals. Patterson, reporting his case in the *Medical Times and Gazette*, 1864, vol. ii., p. 476, states that not only was the gall-bladder absent but also that there was apparently no direct communication between the liver and the duodenum, and this is the more remarkable in that the man was 35 years of age. The examination appears to have been careful but the condition of affairs is almost incredible although it appears undeniable that life has been possible for six months when the hepatic and common ducts have been completely obliterated. It has been plausibly suggested that some, if not all, of the cases reported as examples of congenital absence of the gall-bladder and bile-ducts are really cases of congenital obliteration due to an inflammatory affection during intra-uterine life. As such cases are usually associated with a lobular cirrhosis of the liver, a microscopical examination of this organ might throw some light on the real nature of the congenital defect. It is of interest to inquire whether the gall-bladder has any other function than that of acting as a temporary reservoir for bile. In 1887 Bristowe suggested that the cholesterin from which calculi are formed is secreted by the mucous membrane of the gall-bladder. He based his opinion on a case in which he found the gall-bladder almost obliterated. In certain spots there were small cavities inclosed by mucous membrane and in these were lumps of soft cholesterin. Naunyn, who was unacquainted with Bristowe's hypothesis, arrived independently at the conclusion that the cholesterin and the lime of normal bile were derived from the epithelium of the biliary passages and of the gall-bladder. The excretion of cholesterin is not, however, peculiar to the mucous membrane of the biliary passages

but is constantly found in the secretion of other mucous membranes and forms a characteristic content of certain cysts developed in connexion with the teeth. Neither the storage of bile nor the secretion of cholesterin is essential, as surgery has many times conclusively proved since von Langenbuch performed his first operation for its removal in July,, 1882. Moreover, many herbivorous animals are altogether destitute of a gall-bladder and there is not necessarily an increased capacity of the bile-ducts to compensate for its absence. On the other hand, a case has been reported by Purser and the specimen figured in the Transactions of the Royal Academy of Medicine in Ireland, vol. v., where two complete gall-bladders and cystic ducts were discovered in a girl who died from scarlet fever. In the same communication reference is made by Purser to another similar case.

ANOMALIES IN THE APPLICATION OF THE DUTCH PUBLIC HEALTH ACTS.

UNTIL recently each county or province in the Netherlands had its own medical council but these bodies did not accomplish much and their work was not considered satisfactory. The members accepted their appointment as a mark of distinction; they were tolerably sure of periodical re-appointment as long as they lived and did not trouble themselves about many things beyond an occasional inspection of a pharmaceutical chemist's establishment. About two years' ago the States General passed a new Health Act which instead of reorganising the old councils abolished them altogether. The consequence is that there are now only municipal boards of health, in addition to which there is in every province a chief inspector who has the power to summon the chairmen of the various boards in his province to a meeting, but he is in no way compelled to do so. The lately existing medical councils met twice a year and had power to make by-laws and regulations. At present the chief inspector of a province usually holds meetings of the chairmen of the boards of health twice a year, but at the meetings these chairmen can merely ask questions, offer observations, or submit requests to the inspector. They have no power to pass any resolution or to give any directions to the inspector; he may or he may not pay attention to what the chairmen say, and often enough he takes no notice of their remarks. The natural consequence is a great amount of dissatisfaction. In one of the southern provinces the chief inspector invited two chairmen to become members of a committee on an urgent question and to prepare a report. They did so in time for the next meeting but the matter was not mentioned in the agenda paper for that meeting and no reference was made to the report because the inspector no longer considered it necessary to deal with the matter. At another meeting this same inspector invited the chairmen to investigate the state of the police-court cells in their various communities in that province. One of the chairmen said that there ought to be some inquiry as to whether lunatics were ever placed in these cells and the inspector accepted the suggestion but he never acted upon it and left it out of the order sheet which he afterwards issued to the local chairmen for their guidance. Another drawback of this new Act is that the local bodies in one province are not in touch with one another and are not even allowed to take combined action without the inspector's consent. In one town, for instance, the local board of health wished to investigate what was done in its district for the prevention of tuberculosis and whether it would be possible to remove patients to sanatoriums or to improve home nursing in such cases. In that province 1000 persons die from tuberculosis every year. This board invited other boards to a meeting, but before it could be held the inspector intimated that the invitation must be cancelled. This means that the officials working under the chief inspectors consider such initiative as not within the meaning of the Act. In other towns there is a widespread desire for combined action with regard to the sale and adulteration of milk, the examination of water, the improvement of drainage, and the inspection of butchers' meat arriving from other places, but official apathy or "red tape" seems to render these reforms impossible at present.

THE ROYAL DENTAL HOSPITAL OF LONDON.

Mr. Morton A. Smale took the chair on Nov. 26th at the Hôtel Metropole, London, at the annual dinner of the staff and past and present students of the Royal Dental Hospital of London. The usual loyal toasts having been drunk with enthusiasm, Mr. Smale submitted the toast of "The Past and Present Students." He said that recent investigations had proved that many gastric, intestinal, and constitutional disorders were due to insanitary mouths and it was not surprising that the hourly ingestion of putrefactive and microbic material should lend to serious malaise and ill-health. The quackery prevalent in dentistry was doing much harm to the public and legislative steps should be taken to arrest it; even qualified persons were sometimes guilty of quack methods and the worst of those was the so-called American dentistry craze. Dentists educated in America who were professional men, not tradesmen—and there were plenty of them—regretted with their English brethren the prostitution of an honourable calling that had been followed by those who claimed to practise some special dentistry unknown to others. The American had no more pre-eminence in dentistry than he had in medicine or surgery. In order that the highest aspirations of the dental profession should be fulfilled care must be taken that the prestige and integrity of the licence in dental surgery were maintained so that the public might know that the possession of that diploma was the only guide in the selection of a dentist. Mr. J. A. Fothergill responded on behalf of the past students and gave a humorous description of his old student days. Mr. A. G. Lacey replied for the present students and his remarks gained a round of hearty applause when he resumed his seat. Mr. A. Pearce Gould, in submitting the toast of "The Hospital and School," made some very interesting and important observations that were much above the level of ordinary after-dinner speeches. He said he was glad that the toast which he had to propose combined the hospital with the school, for there were certain misguided people who would like to separate the one from the other and who were continually asking for an exact statement of what the hospital owed the school and what the school owed the hospital. Some were even busying themselves in trying to settle this question by stating it in columns of figures and made an attempt to solve the problem by determining how many pounds the hospital contributed to the school and how much pecuniary aid the school afforded to the hospital. That was an entirely wrong point of view to take, but instead they should remember that the students of the hospital were the backbone of the charity. It would be a sad day for the Royal Dental Hospital and for all other hospitals that had the good fortune to have schools when either of the parties to these alliances sought to look too closely into the union, judging it merely from a pecuniary standpoint. Replying to what had fallen from Mr. Lacey, Mr. Pearce Gould assured those present that the Royal College of Surgeons of England was animated with sympathy for the dental students and desired to meet in every way any legitimate request that they might make, but the College was determined to allow nothing to lower the value of

the licence in dental surgery. The interest of the surgical profession in the dental profession had increased of late years and the public interest in its work had grown, but apart from that surgeons recognised how much more importance was now attached to the teeth and to the work of dentists than formerly. Surgeons had learnt to appreciate the necessity of rendering the teeth properly clean when approaching any of the large operations in connexion with the buccal cavity. They now recognised the effects of diseases of the teeth, particularly pyorrhœa alveolaris, which might trip them up in diagnosis and treatment if they were not very careful. The specialty of dentistry differed from all other specialties in the fact that there was no tendency to divorce it from medicine and surgery. Mr. Richard Winch, one of the governors of the hospital, replied to the toast, as also did Mr. J. F. Colyer, the dean. The toast of "The Visitors" was intrusted to Dr. Dudley W. Buxton who eloquently performed this duty, and Dr. A. Eddowes replied. The health of the chairman, proposed by Mr. Leonard Matheson, was duly acknowledged and terminated the proceedings.

CRÈCHES v. SCHOOL.

IN the year 1903 the deaths caused by measles in the administrative county of Lancashire numbered 695 and the spread of the disease is believed to be due in great part to the association of children at school. The medical officer of the county, Mr. E. Sergeant, says: "At school young children from three to five incur a great risk of infection, not only of measles but of whooping-cough and scarlet fever, and no doubt an immense loss of life takes place from this cause, far out of proportion to any educational advantage that may be attained. ..... Infants under the age of five are not required to attend school and in preference to the danger and expense incurred in the education of infants it would to my mind be preferable to establish public crèches for the care of young infants whom parents send to school in order to be relieved of responsibilities." There is no doubt that the public elementary schools play a considerable part in the spread of zymotic disease but it should not be supposed that public crèches would be free from danger. They would require the closest watchfulness and care to prevent them in their turn from becoming disseminators of disease. In the administrative county the deaths in 1903 from the seven principal zymotic diseases were 10·6 per cent. of those from all causes.

CLIMATE AND STATE SERVICE.

WE learn from New York that Colonel Hecker has handed in his resignation as a member of the Panama Canal Commission. In writing to President Roosevelt Colonel Hecker is reported to have said: "A stay of 15 weeks on the Isthmus during the past summer has convinced me that the effect of the climate of the canal zone is so unfavourable to my health that continued periods of residence there, such as the duties of a commissioner of the Isthmian Canal make desirable, if not imperative, would be at the risk of a general breakdown, both physically and in efficiency of service." No doubt under existing conditions the climate of the canal zone is extremely unhealthy for white men but it is somewhat of a novelty to find a State servant refusing the duties of an accepted post on the ground that his health may become affected. Take the case of military men all over the world, more especially as regards those in the service of the United States now at work in the Philippines. Take again the members of the British army or of the Civil Service, or the Foreign Office, in the unhealthy districts of India, in the swamps of Malaysia, on the West Coast of Africa, on the Persian Gulf, or in Burma. They work till they drop and others step forward to fill the breach. Not that we have any doubt that another—nay, many others—will cheerfully take up Colonel Hecker's post if need be, and we are also certain that the Government of the United States will do all in its power to render the district in question less insanitary, but nevertheless the white man's burden cannot be shirked and it is only by the self-sacrificing labours of pioneers that a malarious and fever-stricken region can be rendered wholesome and sanitary. Long ago it was said, "Sanguis martyrum semen ecclesiæ," and nowadays we may say with truth, "Sanguis martyrum semen reipublicæ."

RURAL DISTRICT COUNCILS AND PUBLIC HEALTH ADMINISTRATION.

THE deputation to the Local Government Board organised by Mr. Justice Grantham denounced the rural sanitary authorities of this country in such a manner that those unacquainted with the work done by them might justly conclude that the members were elected from the most ignorant classes and that their disregard of the public interests was criminal in its character. The *Times* and other influential papers have also published leading articles accepting this view and containing many statements not supported by facts and seriously reflecting upon the public health administration in rural districts. It is unfortunately true that in many such districts the rural councillors are not fully alive to their responsibilities and act as though their whole duty was comprised in "keeping down the rates," but this is far from being generally true and to condemn all rural district councils because of the misguided action of the few is most unfair and tends to increase the very danger which it is desired to avoid. Men of position, leisure, and ability will not be encouraged to serve upon these councils when their actions and motives are alike condemned and in such unmeasured terms. The members of rural district councils compare most favourably as a class with those of urban and borough councils. In the majority of councils a considerable proportion of the members are clergymen, magistrates, and farmers, the men most thoroughly acquainted with the requirements of their districts and most anxious to do all that can be done at a reasonable cost to improve the sanitary condition of the parishes under their control. The officers also, who have met with such unmerited condemnation, are now almost invariably men who have received an education and a training which well qualify them to discharge their duties in a satisfactory manner. However remiss they may be in other respects, neither rural district councils nor their officers can have any desire to prevent the erection of cottages in their districts. Building by-laws have been adopted not to prevent building but merely to insure that such cottages as are erected shall be more sanitary in character than those which are so frequently erected where no by-laws are in force. The blame in connexion with such by-laws must rather be laid upon the Local Government Board which until quite recently insisted upon their model by-laws being adopted. These by-laws were originally devised to meet the requirements of growing urban districts and are in many respects too stringent for adoption in rural areas. Having been adopted, however, and with the express sanction of the Local Government Board, the councils are bound to see that they are obeyed. That such is the case has been held in the High Courts and a council which had permitted a by-law to be infringed has been compelled by mandamus to remove the offending building. An officer, therefore, who neglected to report any infringement coming under his notice would be guilty of neglect of duty. Many rural councils after adopting these by-laws have endeavoured to get the permission of the Local Government Board to

modify them or to make some of them optional. In the county of Essex, for example, the medical officer of health convened a meeting of the rural district councils which resulted in a committee being formed to formulate the modifications desired and two councils inserted these modifications in their by-laws and submitted them to the Local Government Board for approval. The Board at first refused to consider the alterations and suggested that the councils should adopt some modified by-laws which they had prepared to meet the requirements of rural districts. It was found, however, that these referred only to drainage, closet accommodation, and so on, and did not touch the position and structure of the houses themselves. As the by-laws were more particularly required to prevent cottages being built, as they were then being built, of old packing cases, corrugated and galvanised iron, and the like, and often in positions where they appreciably affected the value of the adjoining property, the suggestion of the Board could not be accepted. Finally, after a good deal of influence had been brought to bear upon the President, two conferences were arranged between the representatives of the district councils and certain officials of the Board and a compromise was effected which now permits of cottages being erected in these districts of other than "hard and incombustible material properly bonded and solidly put together." That this concession has been obtained does not appear to be known generally. The effect as yet is said not to be so marked as could have been desired and the impression is gaining ground that the stringency of the by-laws was merely made the excuse for not building cottages, since building operations have not been accelerated though complaints have ceased. The general ignorance of the public with reference to the work done by rural sanitary authorities probably arises in a great measure from the fact that the annual reports of the medical officers of health are either not printed or are merely distributed amongst the members of the councils. If these reports were made a little more interesting and were issued to the public they would serve as a valuable means of educating the people in matters pertaining to the public health and of dissipating some of the ignorance which now obtains as to the duties discharged by the councils. Moreover, it would make the members of the councils more anxious to discharge those duties faithfully if they knew that each year an impartial observer would record the results of their labours for the benefit of their constituents. Such reports to be of value must be, as has been above observed, impartial in character and this impartiality can only be secured when every medical officer of health holds his office not during the will of the council but during that of some higher authority, such as the county councils or the Local Government Board. This, however, is a matter upon which we have so frequently commented that it is not necessary further to insist upon it in connexion with this subject. No doubt some good will accrue from the ventilation of Mr. Justice Grantham's grievances in the press, but on the whole such exaggerated statements as were made by members of the deputation to Mr. Long, and as have since appeared in the lay press, are calculated to do more harm than good; hence they are to be deplored, and it is to the interest of the good government of our rural communities that such statements should not be allowed to pass unchallenged.

THE great pressure on our space caused by the publication at length of the proceedings at the session of the General Medical Council has compelled us to delay presenting to our readers an adequate memoir of our late esteemed colleague Dr. G. V. Poore.

IN a *résumé* of an address delivered by Professor Koch before the Ferlin Medical Society upon Trypanosomiasis which we published in our issue of Nov. 12th an error was made which requires rectification. The discovery of the trypanosome in man in 1901 was attributed by our special correspondent to Dr. Forde, whereas Professor Koch ascribed the discovery, as has, we believe, been generally done in our columns and elsewhere, to Dr. Dutton.

THE triennial prize of £300 for 1904 has been awarded by the trustees under the will of the late Sir Astley P. Cooper, Bart., to Mr. W. S. Handley, M.S. Lond., for his essay on "The Pathology of Carcinoma and the Distribution and Frequency of Occurrence of the Secondary Deposits corresponding to the Various Primary Growths."

THE annual dinner of the Otological Society of the United Kingdom will be held at the Trocadéro Restaurant, Piccadilly-circus, London, W., on Monday, Dec. 5th, at 7.30 P.M. Dr. Thomas Barr (the President) will occupy the chair. Information and tickets can be obtained from Dr. Herbert Tilley, 89, Harley-street, W.

AS was generally believed would be the case Dr. Donald MacAlister, the representative of the University of Cambridge upon the General Medical Council, was elected President of the Council at the close of the session.

THE Earl of Rosebery, Chancellor of the University, has given £1000 to the Institute of Medical Sciences Fund, University of London.

A CONTRIBUTION TO THE STUDY OF THE TREATMENT OF HOSPITAL ABUSE.[1]

BY LAURISTON E. SHAW, M.D. LOND., F.R.C.P. LOND.,
PHYSICIAN TO GUY'S HOSPITAL; HONORARY SECRETARY TO THE FACULTY OF MEDICINE OF THE UNIVERSITY OF LONDON; MEMBER OF THE CENTRAL HOSPITAL COUNCIL FOR LONDON.

THE discussion of hospital reform lately started by the British Medical Association, the impending removal of King's College Hospital from the centre of London to a populous suburb, the negotiations between the London Hospital and the surrounding medical practitioners, and the interest generally aroused in this subject at the present time would seem to make it desirable that any medical man who believes he sees a practicable remedy for hospital abuse should make it known to his colleagues. I therefore willingly accepted Dr. Robert Capes's invitation to take part in this discussion. In my remarks the term hospital abuse is intended to include the treatment at hospitals of patients unsuitable by reason either of their social position or of the nature of their ailments. I have taken a keen interest in this subject ever since, as a student, I was an unwilling instrument in carrying out what in the early eighties of last century was regarded as the most satisfactory way of preventing unsuitable cases from receiving hospital charity. I well remember after having distributed out-patient tickets to a small minority of a host of applicants escaping from the department by a window, in order that I might not see or hear the tears, prayers, and curses of the majority who were afterwards sent away by the porter without treatment. It must be a relief to all those interested in the welfare of the sick poor and in the reputation of our medical charities that this ancient method of dealing with the hospital problem is now generally discountenanced.

In the considerations that I propose to bring before you it will be assumed that hospital abuse as already defined exists and that the proposed remedies as recently set out for discussion by the Hospitals Committee of the British Medical Association are more or less familiar to those interested in

[1] Being remarks made in a discussion on the subject before the Brixton Medical Society on Oct. 27th, 1904.

the subject. These proposals comprise the appointment of investigation officers, the abolition of letters, the absence of payment for treatment, the refusal to see a second time accident cases in better-class patients, and one or two other minor features. I need not now refer more specifically to these proposals, for it is my chief object to point out that however desirable their adoption may be they will not secure their purpose unless supplemented by other more radical measures. It is the custom of public speakers when dealing with political problems to illustrate their arguments with such terms as correct diagnosis, transient symptoms, and vital disease, and to refer to their own proposals as rational treatment, while their political opponents are charlatans offering quack remedies to a suffering people. As a medical man speaking to medical men I may be allowed to follow this method of illustration, excluding, of course, all vituperation, and to state my belief that hospital abuse is but one of the symptoms of a general disease and that the treatment of it in the manner proposed is likely to accentuate the underlying pathological process. The tendency of unsuitable cases to crowd our hospitals is primarily due to the absence of satisfactory arrangements for the treatment by general practitioners of ordinary cases of illness arising amongst the lower and lower middle classes. The introduction of a system whereby medical treatment in their own homes could be provided for all cases which do not need hospital treatment upon terms which would be satisfactory both to the general practitioner and the patient would go to the root of the difficulty and would at once reduce hospital abuse to such small dimensions that it could be easily dealt with.

I would first point out how ineffectual the mere local treatment of hospital abuse is likely to be even when every one of the proposals for local treatment formulated by the British Medical Association is put into practice. There is unfortunately no authority capable of enforcing the adoption and efficient carrying out of these proposals by all hospitals. As a consequence the patients driven from the larger and better conducted hospitals, which if good cause is shown will no doubt be quite willing to adopt the proposals, will almost certainly go to the less important institutions which will certainly refuse to adopt them. It is even to be feared that some enterprising people may see amongst the displaced patients material for the clientèle of hospitals newly founded for the constantly multiplying specialisms of the day. But even if some unexpected power should arise able to compel all hospitals to institute complete precautions against abuse of their charity, and also able to prevent the multiplication of unnecessary hospitals, it is by no means certain that the patients properly excluded from the hospitals would come under the care of those general practitioners who are honestly trying to do their best for their patients and to uphold the honour and reputation of their profession. The untrammelled practice of quacks and prescribing druggists and the unfortunate absence of any coöperation amongst members of the profession unhappily make it certain that great numbers of patients turned from the hospitals would either fall into the hands of unqualified practitioners or would provide a small number of medical men with further opportunities of employing those methods of unrestricted competition and underselling which are having such disastrous results in degrading the profession. So far it appears that the local treatment adopted would only drive the symptom, perhaps in an aggravated form, to another part of the body and at the same time increase the severity of the general condition. But there is a still further complaint to be made against these proposals for local treatment. From the very nature of the case the local treatment cannot be thoroughly effective even in removing the symptom. No amount of activity on the part of almoners or medical officers in investigating cases at the hospital can secure that the most suitable cases are admitted or treated. It is not enough to know what ails the patient or what he says he earns. Knowledge as to home surroundings and accommodation, availability and capability of relatives to act as nurses, the patient's obedience to orders, and on many other points is essential if a serious attempt is to be made to place the resources of our hospitals at the disposal of those only who really need them. And this knowledge of home conditions must be combined with a knowledge of the patient's medical state and with an ability roughly to forecast the progress of his illness. It is impossible to avoid hospital abuse except by the assistance of a medical man who knows the patient in his home. But here we are met by the difficulty presented by the absence of satisfactory arrangements for the home treatment by general practitioners of the great mass of Londoners who belong to the class likely when very seriously ill to require hospital treatment. A great number of these people have become so accustomed to take their trivial ailments to a hospital or other medical charity that there is no practitioner with any knowledge of their home conditions. With the present fierce competition amongst medical men for the gradually diminishing number of persons who do not use hospitals, it is unlikely that any hospital authority would be disposed to place in their hands the responsible duty of selecting cases for hospital treatment. Thus we see that our general disease (the absence of satisfactory arrangements for the treatment in their homes of the lower and lower middle classes) is both the main cause of the symptom we are considering (hospital abuse) and is also the main obstacle to its satisfactory treatment.

It is often the physician's duty to point out that the treatment of symptoms is unscientific and even hurtful and to be in the unfortunate position of having no more hopeful alternative treatment to propose. In the present case this is not so. To discover a remedy for the present chaotic condition of medical treatment among the poor one must first look to the cause. It is not due to any inherent wickedness in the medical profession or in the poor. It is the direct result of a social development which can by no means be regarded as unsatisfactory. There has in recent years been a very rapid growth of an independent working class no longer expecting their wealthier neighbours to succour them in sickness, but without sufficient resources themselves to pay a remunerative fee to a medical practitioner. The medical profession, actuated at first by charity and afterwards by necessity, has gradually reduced its fees until they have become quite inadequate either to pay for the service rendered or to inspire confidence in the recipient of the service. Notwithstanding the almost ridiculous dimensions to which these fees have been reduced there is a large number of respectable Londoners who are unable to pay them regularly during any long illness without ceasing to be able to provide the absolute necessaries of life. To meet the requirements of these the out-patient departments of hospitals have been allowed to develop to inordinate proportions and the proper function of the hospitals has been seriously interfered with.

It would have been better for both the profession and for the poor if opportunities had been given to such people as could not afford a proper medical fee to set aside a small sum each month when in health in order to insure medical attendance in sickness. Although this has been, and still is, done in some districts on a small scale, the conditions in the majority of cases are such as make the system unpopular both with patient and medical attendant. By introducing this system on a large scale, safeguarded by certain essential features and strengthened by the active coöperation of the great hospitals, there is little doubt that medical attendance could be properly provided for all but the pauper class on terms which would remunerate the profession far more satisfactorily than is the case at present. The immense sums which can be accumulated by the collection of small contributions are well illustrated by the financial success of industrial insurance societies. In order to achieve a sufficient popularity to enable the subject of hospital abuse to be effectively and speedily dealt with there are certain features which should be arranged for in any proposal for a provident system that may be adopted.

1. The scheme must be open to all medical practitioners willing to join who have resided in the neighbourhood a certain minimum length of time.

2. It must be open to all persons who may be regarded as unable to pay a reasonable fee for medical attendance during prolonged serious illness.

3. There must be a sliding scale of payments beginning at the ordinary sum now payable by club patients and gradually increasing. The scale must be in proportion to the applicant's wages or to his rent and must vary also in accordance with the number of his dependents.

4. The patient must be at liberty to select his medical adviser from amongst those who participate in the scheme but it must be open to the medical man to decline to attend. Either party must be able to make a change at certain stated intervals.

5. The medical man's remuneration from the fund must

depend upon the number of patients actually attended by him.

6. There must be a small pecuniary penalty (probably payment for medicine) each time a patient receives service from the medical man.

7. The management must be in the hands of a board on which the medical profession has predominant representation.

It is of course important in submitting any scheme of this sort not to introduce too much detail. The above details are, however, necessarily noticed because they indicate absolutely essential features and enable those interested to see at once how some of the unpopular elements of club practice as at present carried on are to be avoided. When once it was arranged that every patient could according to his means secure by a small periodic payment medical attendance by a general practitioner, there would be no excuse for offering medical charity unless the case were obviously of so exceptional a character as to require exceptional experience for its diagnosis or treatment. Those who could not afford the minimum payment would obviously be fit subjects for relief under the Poor-law. The charitable public would probably be asked to supplement the weekly payments of those who made the minimum contributions and should be encouraged to help the poor to keep up their payments whilst out of work or ill. Ultimately, it would no doubt be reasonable to arrange that no patient should be considered as eligible for hospital treatment who was not a contributor to the provident fund and certified by his medical attendant as a fit subject; and the out-patient department would come to be used by the medical men participating in the scheme as a means of obtaining free consultations for their poorer patients who were provident members.

The prospect of medical attendants being used under these conditions to prevent disease rather than to cure it presents many attractions. So, too, does the possible use of the collectors as apostles of hygiene in their weekly or monthly visits to obtain the periodic contributions. It seems to be well worth the consideration of the medical men of South London whether they can organise some such scheme as this before the arrival in their midst of King's College Hospital. On the other hand, King's College and many other hospitals might well consider whether, with a view of securing the most suitable cases for their charities, they can offer some special advantages to members of provident dispensaries conducted on lines likely to be beneficial to the public and the profession. Finally, some of the more important provident institutions which seem to make but little headway at the present time might discuss whether they could in coöperation with the hospitals so alter their conditions as greatly to increase their membership and to become a more efficient means of relieving the hospitals from the intolerable strain of the pressure of unsuitable cases commonly called hospital abuse.

Looking Back.

FROM

THE LANCET, *SATURDAY*, Dec. 2, 1826.

FOREIGN DEPARTMENT.

ANATOMY.

Absence of the Gall Bladder in a Human Liver. By M. GODELIER, Surgeon-in-Chief of the Military Hospitals of the Rochelle.*

LEMERY mentions the case of a liver without the gall-bladder, but it was thought that this state was owing to disease, rather than a natural conformation. Sabatier says, in his anatomy, that "the gall-bladder is never wanting in man; if, occasionally, it has been thought that the contrary has been observed, it may be explained by the minute size of this organ, or its being sunk into the substance of the liver, or its being wasted by some disease." We are inclined to believe that the original deficiency of an organ is a much rarer occurrence than is generally believed; but Sabatier's assertion is by far too general, and admits of being easily refuted. The gall-bladder is the constant seat of disease; its cavity is frequently distended to an enormous size, and, on the other hand, sometimes quite obliterated. The obliteration of the cavity in the human subject, shows that the organ is not essential to life. And the entire absence of the gall-bladder in many animals, particularly the invertebrated, is a proof, by analogy, of this assertion. Meckel, in his *Handbuch der Pathologischen Anatomie*, Bd. I. p. 607, mentions cases of the total absence of the gall-bladder in the human subject. Habert † and Tiedemann ‡ saw cases of this kind, where there was not the slightest trace of a depression in the liver for the gall-bladder. The following case may also be quoted in proof of the point, thus showing that the gall-bladder is not absolutely necessary to life, and that without this organ a person may enjoy a good state of health.

The subject of the following case, a soldier, æt. 26, on the 10th of last September, fell from a height whilst in a state of intoxication, and was killed on the spot. He was immediately carried to the Amphitheatre of the Military Hospital of La Rochelle. The inspection of the body was soon afterwards made in my presence, and the medical men belonging to the regiment. On opening the abdomen I was immediately struck with the absence of the gall-bladder, and that the yellow appearance of the arch of the abdomen, which usually exists, was not present. We then proceeded to a more minute examination of the part, and found that there was not the slightest tint of yellow in the concave surface of the liver, nor any vestige of a fossa. Surprised at this phenomenon, two able assistants were directed to dissect the hepatic duct with care. Its size was double that of the natural state.* No trace of a cystic duct could be discovered. Lastly, to avoid the possibility of a mistake, the liver was removed from the body and examined, both internally and externally, but without discovering the least vestige of a gall-bladder. In short we are all perfectly convinced that, in this person, the gall-bladder never existed.

* Gazette de Santé, Oct., 1826.

† Phil. Trans. No. 492, p. 93.

‡ Reil's Archiv. Bd. 5, s. 144.

* In most of the cases on record of absence of the gall-bladder, a similar dilatation of the hepatic duct has been observed.—ED. L.

CENTRAL MIDWIVES BOARD.—The members of the Central Midwives Board met on Nov. 24th at 6, Suffolk-street, London, S.W., Dr. F. H. Champneys being in the chair. A letter was read from the honorary secretary of the Metropolitan Counties Branch of the British Medical Association inclosing a copy of a letter addressed by the branch to the London County Council and asking for the coöperation of the Board with the London County Council in obtaining powers from Parliament to pay registered medical practitioners when called in by midwives in emergencies. The Central Midwives Board agreed that statutory provision should be made for the payment of the services of a registered medical practitioner when called in by a midwife in accordance with the rules of the Board and it was stated that the Board had already forwarded a resolution to this effect to the Privy Council. A letter was read from the clerk of the Monmouthshire county council asking the Board's construction of the words, "otherwise than under the direction of a qualified medical practitioner." These words occur in the second subsection of Section 1 of the Midwives Act, and after some discussion it was agreed that a letter should be written to the Monmouthshire county council saying that the Central Midwives Board was unable to give a general answer because the matter was one on which no authoritative legal decision had been given. After consideration of applications for certificates the names of 1068 women were passed under Section 2 of the Act and ordered for entry on the Roll. The total number of midwives enrolled now amounts to 10,538, of whom 6166 are registered as "women in *bonâ-fide* practice before July, 1901," while 3411 hold the certificate of the Obstetrical Society of London. Miss J. Wilson moved, and Dr. C. J. Cullingworth seconded, the following motion, which was carried:—

That in order to carry out the resolution agreed on at the meeting of the Board on April 28th it be resolved that the Board take steps forthwith for the appointment of a trained inspector willing to act under the provisions of the resolution.

Dr. Cullingworth then proposed the exclusion of the press from the meetings of the Board, upon which a debate followed which was postponed until an opportunity had been given for the practice of the General Medical Council to be considered. The Board adjourned to Dec. 1st.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THE session of the General Medical Council came to an end on Tuesday, Nov. 29th, a short session having been generally expected.

As also was generally expected, the Council selected as their President Dr. Donald MacAlister, the representative of the University of Cambridge. Their choice could not have fallen in a better place, indeed there may be said to have been no other serious candidate for the dignified and responsible post. Dr. MacAlister, who graduated in Arts at Cambridge some 27 years ago as Senior Wrangler and First Smith's Prizeman, has since he became a member of the medical profession been a tower of strength to the medical faculty of his University. At the Royal College of Physicians of London, where he was elected a Fellow at the shortest possible interval after obtaining the Membership, he has been Goulstonian and Croonian lecturer. At Cambridge his course has been no less rapid and important. Fellow and Tutor of St. John's College, Cambridge, and Assessor to the Regius Professor of Physic, he was elected upon the resignation of Sir George Humphrey in 1889 representative of the University upon the General Medical Council. Upon the Council he has been distinguished by his close grip of affairs. To every question of importance that has come up for consideration he has contributed something of value, something that showed him to be intimately familiar with both sides of the subject and anxiously willing to arrive at a fair conclusion. His ability, courtesy, and widely sympathetic attitude have been properly recognised by his colleagues in his election to the Presidential chair.

Sir William Turner was entertained by the General Medical Council at a dinner at the Trocadéro Restaurant on Nov. 26th. The occasion was a strictly domestic one, the company including besides the members of the Council two or three of the ex-members and gentlemen who have done official work for the Council. Sir Patrick Heron Watson, as the senior member of the Council, presided, and in proposing the toast of the evening made an impressive speech. No one, of course, was more able to do so, from his long acquaintance with the work of the Council and his long friendship with Sir William Turner. It is not too much to say that the speech made a marked impression on the whole audience as well as on the distinguished guest of the evening. It brought out in short full sentences the masterful yet kindly qualities with which Sir William Turner has ruled the Council during his term of office. All his high qualities of method in business and soundness of judgment were alluded to, and the sense of loss under which his resignation has placed the Council was minimised by a happy forecast of the further use of his powers for the good of medicine in his new position as Principal of the University of Edinburgh. Sir William Turner, who is as much a man of sentiment as of science and commonsense, was obviously touched by the speech of Sir Patrick Watson. He reviewed the work of the Council and enumerated with pride the names of his predecessors in the chair. With ingenuous modesty he attributed his business qualities to the study of anatomy as the science of effective organisation. Whatever the amount of truth in this view the Council felt that it was losing one of its most valued Presidents and the profession will share the opinion.

The business of the newly completed session has amounted largely to a reviewing of existing positions and a readjusting of existing questions. No innovation has marked the policy of the Council or the conduct of its business, nor have professional affairs thrust upon the Council anything novel requiring consideration. As we anticipated in our leading article last week, an interesting debate followed upon Dr. Lindsay Steven's motion with regard to the arrangement of the student's work during the five years of the medical curriculum. The Council seemed to be generally of opinion that owing to the increase of work now imposed upon medical students in the earlier part of the curriculum many of them do not pass examinations in the preliminary subjects—physics, chemistry, and biology—until after they have made a beginning of the especially medical portions of the curriculum. This precludes the undivided attention which the study of such subjects as anatomy and physiology requires, while the fifth year of the curriculum, which was added by the Council for the special purpose of being used only for clinical work, becomes overloaded, necessary book-work intruding upon the practical routine. It was decided after an interesting debate to remit to the Education Committee to consider and to report at the next session of the Council whether the passing of a preliminary scientific examination should be made compulsory before the admission of students to the study of anatomy and physiology. Alternatively the Education Committee is asked whether it should be made compulsory upon the student before presenting himself for his final examination to show that he had devoted at least one year to clinical work alone. It will be interesting to note what proposals the Education Committee makes, but the burden borne by the modern medical student is obviously a very heavy one and the committee may be expected to direct its efforts towards making smooth his path.

A long debate, which we publish this week, ensued upon a communication received by the General Medical Council from the Privy Council respecting the introduction of a Bill into Parliament to establish the registration of students. It will be remembered that a motion to this effect was passed by the Council on May 30th last. As a result the Royal College of Surgeons of England, the Royal College of Physicians of London, and the University of Oxford have made certain representations to the Privy Council, the Colleges actively objecting to the legislative proposal and the University seeking information. The Privy Council thereupon recommended that the General Medical Council should confer with the Colleges, which bodies resented the principle of a compulsory registration of their students by any other body, and much discussion ensued upon the practical utility of holding such a conference. Two questions were seen to be involved by those of the debaters who had grasped the situation. One is the question whether the General Medical Council is not, by its very constitution, a sort of standing body for conferences of the whole medical profession and, if this be so, no further conference can be needed. The other is the question as to how the General Medical Council can pay its way. If the various medical qualifying bodies object to registration of their students by the central authority the matter can be shelved. But the necessity of increasing the income of the Council is urgent—it cannot be shelved. The result of the debate has been that for the time being the Council will not proceed with its Bill as the opposition to the registration of students is not likely to be confined to the English Conjoint Board. But an alternative method of securing an income must be settled upon soon.

The final medical examinations at the universities of Scotland have not undergone visitation and inspection at the hands of the General Medical Council for some time until this year and the reports received this session are not on the whole very favourable. The University of Edinburgh in particular came in for a considerable amount of criticism,

and a long debate ensued upon the form of the report which was considered by the President of the Council and others to contain strictures that were too general. It was finally agreed that a further inspection should be made of the surgical part of the final examination of the University during the coming year. It was also decided that the Examination Committee should be requested to reconsider its report on the final examination as a whole and to present a final report on the two inspections at the November session of the Council in 1905. The statement of the financial position of the Council was presented by the Finance Committee on Saturday, Nov. 26th, and is a distinctly unsatisfactory one. Whether by some system of an annual registration fee or by Government subsidy, it is clear that the income of the Council must be increased.

WEDNESDAY, NOV. 23RD.

THE Council resumed its deliberations to-day, Sir William Turner, the President, being in the chair. Penal cases were taken as the first business.

The Case of Mr. C. J. Nally.

The PRESIDENT said that the first case was that of Christopher Joseph Nally, registered as of 9, Hardy-terrace, Crook, Co. Durham, Lic., Lic. Midwif. 1893, R. Coll. Phys. Irel.; Lic., Lic. Midwif. 1893, R. Coll. Surg. Irel. Mr. Nally was under sentence of six months' imprisonment and as the six months had not yet expired he would appear in charge of two officers of the prison. There was no prosecuting body, because it was the conviction that the Council must proceed upon.

Mr. Nally was then brought into the Council chamber, his counsel being Mr. Lewis M. Richards (London), instructed by Mr. H. P. Douglas (Crook, Durham).

Mr. WINTERBOTHAM, solicitor to the General Medical Council, said that Mr. Nally had been summoned to appear in consequence of his conviction as set forth in the following certificate:—

> I hereby certify that at the assizes and general gaol delivery of our Lord the King, holden at Durham in and for the County of Durham, on the 13th day of July, in the year of our Lord, One thousand nine hundred and four, before the Hon. Sir William Grantham, Knight, Christopher Joseph Nally was in due form of law tried and convicted on a certain indictment against him, for that he the said Christopher Joseph Nally did on the 25th day of March, One thousand nine hundred and four, unlawfully wound Gaggett Joseph Plunkett Nally, and the said Christopher Joseph Nally was thereupon ordered and adjudged to be imprisoned for six months in the second division.

On the motion of Mr. BROWN, seconded by Mr. JACKSON, various other documents were read, including the depositions taken in the magistrate's court. From these it appeared that Mr. Nally had wounded his son, aged one year and seven months, on the arm with a knife and that at the time he had been suffering from illness.

Mr. RICHARDS read the statutory declaration of the accused practitioner. In this document Mr. Nally stated that he had suffered from consumption. In March last he was troubled with blood spitting and high temperature. In the forenoon of March 25th he sent for Dr. Campbell and that gentleman attended him at 11 A.M. In the afternoon he felt himself getting delirious and told his wife to remove any dangerous articles out of his way. About 4 o'clock in the afternoon he was informed that he jumped out of bed and wounded his child. For some time previously he had been in failing health and had not slept well and he attributed his act to delirium brought on by opium acting on a highly nervous system. The wound was never serious and was of no consequence. Counsel proceeded to state that when the case was in court the judge invited the grand jury to throw out the bill. Apparently the grand jury did not accept the invitation and for some astounding reason, which counsel did not know, this unfortunate man was induced by his solicitor to plead guilty to the offence. In ordinary circumstances, even in pleading guilty, he would merely have been asked to come up for judgment when called upon, but Mr. Nally, with the case hanging over him, had a day before he stood his trial taken to drink and no doubt he actually appeared in the dock in a condition in which he ought not to have been, and the judge sentenced him to the term of imprisonment stated. This was a case in which no fault could be found with the accused in a professional way and he suggested to the Council that it was not a case in which they should take the extreme step of striking the man off the Medical Register. He was a well-qualified man. A petition had been prepared. It was largely signed by every class in the district in which Mr. Nally had practised. The feeling of these people was that it was an unfortunate case and they would gladly welcome Mr. Nally back again amongst them as a medical man. His client had been punished sufficiently, he suggested, by the degrading position in which he had been placed. He further asked the Council, having regard to the facts, to postpone the decision in order to give Mr. Nally an opportunity to rehabilitate himself.

Mr. BROWN asked if Mr. Nally would be put into the witness-box.

The PRESIDENT said that it was not customary when a case was put before the Council with a conviction got in a court to put the accused person into the witness-box.

Mr. BROWN said that he remembered a case very distinctly where the Council had in the witness-box a man who had been convicted. He was not sure that there were not some of the members who wished to ask questions. For himself he wanted to get all the facts in order to arrive at a decision.

The PRESIDENT asked whether Mr. Nally's counsel wanted to put him into the witness-box.

Mr. RICHARDS said that personally he did not. He did not think that Mr. Nally could add to what had already been said on his behalf.

Mr. MUIR MACKENZIE said that as Mr. Richards had stated that his client was willing to go into the witness-box the fact that he did not go ought not to operate in the slightest degree against him. He did not think that it was a convenient practice that the person whose case was being inquired into should go into the witness-box in a case of the present kind. The Council was not there to try the case but to accept the conviction. It was for the members of the Council to exercise their discretion whether the person affected should remain on the Register. He suggested that they should now proceed to consider the case in private.

Mr. RICHARDS said that he would like to mention that there was no canvassing for the petition in favour of his client. Mr. Douglas put a notice in his window that a petition was being got up for presentation to the Council and every person signed it of his own free will.

The Council then considered the case *in camerâ*.

When the public were readmitted,

The PRESIDENT, addressing Mr. Nally, said: The Council has deliberated on your case and the conclusion it has come to is that your name will not be erased from the Medical Register.

Mr. NALLY: Thank you, sir.

The Case of Mr. H. S. Revell.

Hugh Stanley Revell, registered as of The Briars, West Hill-road, Southfields, London, S.W., Mem. R. Coll. Surg. Eng. 1894, Lic. R. Coll. Phys. Lond. 1894, was summoned to appear before the Council in consequence of his conviction at the Central Criminal Court. The certificate of conviction set forth that on June 20th, 1904, Hugh Stanley Revell was convicted on his own confession on a certain indictment against him that he did unlawfully obtain by false pretences of and from the guardians of the Wandsworth and Clapham Union and from H. Newell, W. T. Bray, and Thomas Young a certain valuable security—to wit, a banker's cheque and order for the payment of money to the amount of £76 6*s*.—with intent to defraud; and the said Hugh Stanley Revell was on Sept. 13th, 1904, ordered to be imprisoned without hard labour in Wandsworth Prison 12 weeks and two days, to be computed from June 20th, 1904.

The accused practitioner, who was not represented by counsel, read a statement in his own defence. He had to say that acting on the advice of counsel he had pleaded guilty to the charges and on full consideration of the facts and having regard to the fact that he had been on remand for three months the Recorder passed upon him a sentence which resulted in his release the same day. His defence to the charges would have been that whatever had happened was through inadvertence and stress of work at a time when he was in a most anxious state of mind owing to the illness of his wife. He had left the keeping of his books and accounts to others, and when on going over them he discovered the errors and mistakes he weakly allowed them to stand instead of at once reporting the matter. Since the matter was dealt with by the Recorder many patients and friends had asked him to resume his practice among them.

Mr. WILLIAM F. REVELL, the father of the accused, appeared in the witness-box and declared that before this charge nothing had been brought against his son.

Mr. A. TICKNER of Putney also offered evidence at the request of Mr. Revell. He had been a patient under Mr. Revell and he had also acted with him in business as a lawyer. He had always found him perfectly honest and he knew that as a professional man Mr. Revell gave every satisfaction.

The Council having sat *in camerâ*,

The PRESIDENT said: The Council has deliberated on your case, Mr. Revell, and it has directed the Registrar to erase your name from the Medical Register.

Mr. REVELL: Is there any chance of my ever again——

The PRESIDENT: I have given you our decision.

Mr. REVELL then withdrew.

The Council then sat *in camerâ*.

Registers of Students.

On resuming public business the Council proceeded to the consideration of a communication from the Privy Council, which was referred to the Council by the Executive Committee, respecting the introduction of a Bill into Parliament to establish registers of students, with regard to which subject the General Medical Council, on May 30th, 1904, passed the following resolution:—

That the Lord President of the Privy Council be requested to introduce into Parliament a Bill to confer upon the General Medical Council statutory power to establish and maintain registers of medical and dental students, and to impose a fee not exceeding £1 for registration therein.

Privy Council Office, London, S.W., Nov. 1st, 1904.

SIR,—The Lord President of the Council has had under his consideration the proposal of the General Medical Council contained in your letter of June 1st, for the establishment of a register of medical students and the imposition of a registration fee not exceeding £1.

Communications on the subject have been received from the presidents of the Royal Colleges of Physicians and Surgeons (copies of which are inclosed) and I am to suggest that, in the circumstances, it might be expedient for the Medical Council to confer with the Colleges with a view to the preparation of a scheme providing for their coöperation towards the desired end on a basis that would, in some form or other, recognise existing rights.

I am, Sir, your obedient servant,

The President of the General Medical Council. A. W. FITZROY.

[INCLOSURES.]

Royal College of Physicians, London, S.W., July 9th, 1904.

To the Lord President of
His Majesty's Most Honourable Privy Council.

MY LORD,—The representative of this College on the General Council of Medical Education and Registration has informed the College that the following resolution was adopted by that Council during its session in May last, viz.:—

"That the Lord President of the Privy Council be requested to introduce into Parliament a Bill to confer upon the General Medical Council statutory power to establish and maintain registers of medical and dental students and to impose a fee not exceeding £1 for registration therein."

In view of this proposal I am desired by the College to approach your lordship and to beg that when the matter comes under your consideration before the introduction of any such Bill an opportunity may be afforded this College of being heard by your lordship on the proposal.

From its incorporation to the present time, under the authority of its charter and statutes, this College has determined the conditions of admission to its professional qualifications and it claims to have faithfully exercised the powers entrusted to it for the public good. It appears to the College that the effect of the proposed measure, so far as it has been made known, would be to transfer to the said Council an important part of this power which has hitherto been safeguarded in the Medical Acts and that it would similarly infringe the authority of the Royal College of Surgeons and of the Universities in granting degrees in medicine. It would, moreover, impose an additional pecuniary charge on persons entering the profession which is believed to be undesirable and unnecessary.

I am, my lord, your lordship's obedient servant,

W. S. CHURCH, President.

Royal College of Surgeons of England,
Lincoln's Inn Fields, London, W.C., June 10th, 1904.

DEAR SIR,—The Council of this College understand that the General Medical Council have requested the Lord President of the Privy Council to introduce into Parliament a Bill to confer upon the General Medical Council statutory power to establish and maintain registers of medical and dental students and to impose a fee not exceeding £1 for registration therein.

The passing of such a Bill without the introduction of restrictions would probably enable the General Medical Council to lay down conditions of registration and thus might transfer to that body the right which this College has exercised for more than a century of selecting the institutions at which the curriculum of professional study may be commenced by candidates for its diplomas.

The Council of this College are by no means disposed to relinquish this right, which they believe it is expedient in the interests of medical education that they should retain, and I therefore beg, on their behalf, to express the hope that the Privy Council will not proceed to promote a Bill such as that desired by the General Medical Council without affording this College the opportunity of expressing its views upon the subject after consultation with the Royal College of Physicians and other institutions similarly affected.

I am, dear Sir, yours faithfully,

JOHN TWEEDY, President.

A. W. FitzRoy, Esq., C.V.O.,
Privy Council Office, London, S.W.

Lincoln College, Oxford, November 1, 1904.

My Lord President,

General Medical Council Bill.

I am requested by the Council of the University of Oxford to approach your Lordship in this matter, praying that, before the introduction of any Bill intended to give effect to the resolution concerning the registration of medical and dental students adopted by the General Medical Council during their session in May last, the Council of this University may be made acquainted with its provisions, and may be afforded an opportunity of expressing their views thereon.

I am, my Lord President, your Lordship's obedient servant,

W. W. MERRY, D.D.,
Vice-Chancellor of the University of Oxford.

To the Lord President of His Majesty's Most
Honourable Privy Council.

The PRESIDENT said that before this communication formed the subject of discussion he wished to put before the Council his view as to the direction in which the discussion ought to go. They started from the motion which was passed on May 30th last and which represented the conclusions to which the Council came on that date. Being on the minutes that motion became public property, and the Royal College of Physicians, the Royal College of Surgeons, and the University of Oxford had the resolution before them and were perfectly entitled to take such action on the matter as they had taken. No one could find the least fault with the action taken by those bodies. It had led to a letter from Mr. FitzRoy, clerk to the Privy Council, written obviously under instructions from the Lord President of the Privy Council. Mr. FitzRoy sent copies of the communications made by the two Royal Colleges and the University of Oxford and wrote as follows:—

And I am to suggest that, in the circumstances, it might be expedient for the Medical Council to confer with the Colleges with a view to the preparation of a scheme providing for their coöperation towards the desired end on a basis that would, in some form or other, recognise existing rights.

What they had to consider was whether they should go into conference with the two Royal Colleges. They were not asked to reconsider their resolution which was not in any way reopened. He thought the matter before them was limited to the question whether they should go into conference with the two Colleges.

Dr. NORMAN MOORE suggested that the debate should be held *in camerâ*. There were two pages of *camerâ* minutes and if they were precluded from alluding to those he did not think they could fairly discuss the subject. If they had been communicated by the President and Sir John Tuke to the Lord President of the Privy Council——

Sir JOHN BATTY TUKE: No, no. I have nothing to do with it.

Dr. NORMAN MOORE said if they assumed that those had been communicated and if they only required to allude to them generally then there would be no need to go *in camerâ*.

The PRESIDENT said it was a delicate matter to refer to *camerâ* minutes but there was a good deal in this *camerâ* minute that was public. There were the draft Bill printed as an appendix and the memorandum submitted to the Lord President on the question of the financial relations of the Council. Therefore he saw no reason why the financial side of this question should not be referred to in the discussion.

Dr. NORMAN MOORE said he was ready to fall in with the President's ruling.

Dr. MACALISTER formally moved that the communications be received and entered on the public minutes.

Sir VICTOR HORSLEY seconded the motion which was agreed to.

Sir CHRISTOPHER NIXON in opening the discussion said that he might remind the Council that there were more than two Royal Colleges and that the others had interests quite on a level with those of the English Colleges which must be considered in this matter. There was no use having a conference if the feelings of the other Royal Colleges in connexion with this Bill could not be considered at the same time. A good deal of time would be saved if the discussion were postponed until the Council had ascertained the views of the other colleges throughout the country and was prepared to have a conference and an expression of all their views.

Sir CHARLES BALL said that the University of Oxford and the Conjoint Board of England were apparently the only two who had approached the Privy Council. If those two alone

were consulted it was very probable that many of the other licensing bodies would feel that they had been left out when they might have a good deal to say. He believed with Sir C. Nixon that this matter would be opposed by the Royal College of Surgeons in Ireland. It considered that the course open to it would be to oppose the Bill in the House of Commons. It would be a simpler matter if the communication were referred to all the universities and licensing bodies.

Sir JOHN W. MOORE moved that copies of the resolution of May 30th, 1904, be sent to all licensing bodies in the United Kingdom with a request that they might favour the Council with their opinions thereon. The Council, he said, would undoubtedly have had a written communication from the Royal College of Physicians of Ireland respecting this resolution but for the fact that the College had no official information that such a resolution had been passed except what it had heard from him. It was desirable that every licensing body should have a copy in order that its opinion might be elicited. Although he had supported the resolution in the Council the College of Physicians of Ireland as at present advised was entirely opposed to the proposed Bill.

The PRESIDENT: It has not seen the Bill yet.

Sir JOHN W. MOORE: No; but there is a great deal of misconception as to the scope of the Bill and with regard to its effect and the Council ought to take into consideration the opinion of the different bodies.

Dr. NORMAN MOORE, in seconding the motion, said the College of Physicians in London would not wish to put itself in a different position from any other licensing body. It knew that the Council had applied to the Privy Council and it thought it its duty to have the power of being heard before the Privy Council. That was not with any desire to have any peculiar or special position of any sort. Even if a conference were held the power would still remain as it remained to every individual in the kingdom to ask to be heard and perhaps obtain leave to be heard before the Privy Council.

Sir JOHN BATTY TUKE thought that it would be rather futile to get the opinions only of those bodies which had already made up their minds without in many cases knowing the real facts of the case. What they wanted if they were to have a conference was a conference of all the bodies, with such a number of representatives in each case as should be determined by the Council. In a great many instances the question was not understood.

Dr. MACKAY said that a great deal depended on the exact language of the Council's proposals. It might be that they would ask the power to charge a fee to each student. It might be that they would ask power to lay down a standard of preliminary examination. It might be that they would ask power to lay down conditions as to duration of preliminary study and the places where it was to be carried on. All those matters were of the utmost importance. According to one of the phrases used by one of the Colleges it had fears regarding the right "of selecting the institutions at which the curriculum of professional study may be commenced by candidates for its diplomas." He thought they should clearly define what they wanted to do with this Bill and having done so make the matter public. They would then have abundant opportunity of hearing what other bodies had to say about the matter. Therefore, in the meantime he would not go forward to a conference, but would define their views and make them public. After that they would be able to confer. He proposed, as an amendment, that instead of going into conference with the licensing bodies a statement should be prepared of the proposals of the Council with regard to the establishment of a students' register and the institution of a registration fee.

Sir JOHN BATTY TUKE seconded the amendment.

Sir VICTOR HORSLEY said that the Council in itself was the conference. This fact did not seem to appeal to the Privy Council. They had proceeded all along on the lines that the various bodies were entitled to as much consideration of their opinions as the General Medical Council. He had always held that this was fatal to the prospects of medical education. For the progress of medical education it was necessary that the constitutional position of the Council secured by the Act of 1886 should be recognised by the Central Government. It had never been so recognised and this letter from Mr. FitzRoy was an absolute proof of that position. Mr. FitzRoy said that the Council was to go to a conference with the licensing bodies, but under the Act of 1886 the Council itself was constituted a conference and the conclusion arrived at by that conference at the last session was that they were to ask the Lord President to introduce this Bill into the House. That was a conclusion come to by the representatives of the licensing bodies in conference in the room, with the exception of the Royal Colleges of England. Now that the matter was going into practical shape they understood from some of the representatives of the licensing bodies that afternoon for the first time that their colleges objected. Why did not they tell them so last May? He did not think that was treating the Council fairly.

Dr. NORMAN MOORE said that Sir Victor Horsley was wrong in stating that the Royal Colleges were the only licensing bodies which voted against it. The representatives of the Universities of Oxford, London and Dublin also voted against it.

Sir VICTOR HORSLEY said he was ready to hear that. He purposely had not used the word "only." He had mentioned the Colleges because they took a leading part in the opposition. The next point was the extent to which it was advisable that the Council should enter into conference. It seemed to him that before any idea of a conference was agreed to the position of the Council should be clearly defined in a document drawn up and approved by the whole Council during the present session. The next question would be whether, after the position of the Council was defined, it was desirable to go to conference. His answer was that it would be desirable if there was any likelihood of it being a genuine conference. How could they confer with people who said they would never relinquish rights which they believed to be traversed by the Council's proposed Bill? He did not see how they were going to hold a conference. If they did it would be barren of result, and therefore it would not be desirable for the Council to enter upon it. No other conclusion was possible when they considered the letters of the English Colleges. The letter from the University of Oxford was of a totally different character. It only asked that before the Lord President introduced such a Bill he would hear them. That was a very proper letter for a licensing body to write. The English Colleges, on the other hand, distinctly said that they would not recede from the position which they had taken up for years.

Dr. NORMAN MOORE: Will Sir Victor Horsley refer to the passage in the letter from the Royal College of Physicians to which he alludes?

Sir VICTOR HORSLEY said the passage was: "From its incorporation to the present time, under the authority of its charter and statutes, this College has determined the conditions of admission to its professional qualifications and it claims to have faithfully exercised the powers intrusted to it for the public good." That meant that what is laid down is considered to be the best. The passage went on: "It appears to the College that the effect of the proposed measure so far as it has been made known would be to transfer to the said Council an important part of this power which has hitherto been safeguarded." That meant that those powers had been safeguarded by the College of Physicians which did not intend to allow anybody to take them away. If the Colleges had made the same application to the Privy Council as the University of Oxford had done he should have had nothing to say in the debate, but inasmuch as the position of the Royal Colleges had been thus defined then he repeated that a conference conducted on those principles could only end in failure. If the Council came to that conclusion there was the remaining duty of replying to the Privy Council, and he would not sit down without suggesting what they should do. He thought the time had come for the Council to place itself in its proper position in regard to the Central Government of this country. The time had come for them to say distinctly to the Privy Council that it was under a mistake that this Council was appointed under the Act of 1886 supreme arbiter of medical education and that it should be regarded as such. If the Privy Council when considering the proposal of the General Medical Council saw fit to hear the various licensing bodies it should permit the General Medical Council to be represented by its legal advisers. A letter to that effect would clear the air of all this dispute on which the money of the profession had been, and was being, spent to no purpose whatever, and would keep in the public mind the position of the Council regarding the curriculum.

The PRESIDENT having read out the two motions,

Sir VICTOR HORSLEY said that the Council should vote on Dr. Mackay's motion first and if it were accepted he should like to bring forward a motion that it should be sent with a letter, as he had indicated, to the Privy Council.

Dr. MACALISTER thought the Council might go a little further and have a Bill drafted containing all the clauses and safeguards and the memorandum. That would be the best thing to send both to the Privy Council and to the licensing bodies. From such a statement as that they could get the necessary answer of "Yes" or "No."

Dr. MCVAIL said that he did not at all see any antagonism between the motion and the amendment. Both were quite distinct and he saw no reason why both might not be carried.

Sir JOHN WILLIAM MOORE thought that the drafting of a Bill and the drawing up of a memorandum would be both greatly facilitated if the opinions of the different licensing bodies were in the hands of the committee intrusted with the duty. He thought the corporations would look upon it as a delicate compliment if they were asked for their views in this matter.

Sir CHRISTOPHER NIXON said that in his view they would not gain very much by having any conference at all. The College of Physicians in England stated specifically that they considered that the proposal of any additional charge on persons entering the profession of medicine was undesirable and unnecessary. The Council ought to bear in mind the opposition which had been forthcoming against the Bill on the part of the Royal Colleges in England and in Ireland. The Bill would not pass because there would be the most strenuous opposition to it in Parliament. This was really a matter of providing the Council with sufficient funds to carry out its extremely important work. It must be a matter patent to members that they could not continue their work there and their system of examinations without having more funds. He thought that it was needless to introduce a Bill which raised very vexed questions. If they promoted a much simpler Bill it would not be likely to excite opposition. It would not put any penalty upon the existing members of the profession if members on joining it should pay £10 in future instead of £5. He did not think that they would be likely to set up such opposition by this course as by putting a sum on students.

Dr. NORMAN MOORE said that he must decline to accept Sir Victor Horsley as the interpreter of the intentions of the College of Physicians. He did not understand that College. If he did thoroughly understand it he would know that the College would never stand upon any ancient charter or Act of Parliament if it believed it was for the public good that it should give up any privilege which it had so received. It had over and over again given instances of this wise and liberal spirit in its body. He would give one example. When it was proposed to found the University of London the College had great opportunities of opposing that. On the contrary, it decided that however much it might take away from its licensing privileges with regard to medicine it was in the public interest that there should be a university in London. Proceeding, he said that it was a great misfortune to the discussion before the Council that two entirely distinct subjects should be mixed up. The Council wanted money. It had not got enough money to discharge what it believed to be its functions intrusted to it under Act of Parliament. He entirely agreed with the necessity for its having more money. That was the general opinion.

The PRESIDENT: It is more than an opinion. It is a fact.

Dr. NORMAN MOORE: I take it from you that is the right way to put it. The Council wants more money. Continuing, he said his own opinion was that the right course for the Council to adopt was to ask Parliament to grant the additional money. The Council had to exercise judicial functions of the utmost importance and it ought to ask Parliament for the necessary money.

The PRESIDENT: We have done it.

Dr. NORMAN MOORE: We should do it again. Proceeding, he said that the other question of the registration of students was involved in the discussion. That question opened up a field of the widest controversy. He had the strongest opinion on the subject himself and the College which he represented had over and over again expressed its opinion on it. It believed that for its Licence it ought to determine the conditions under which a student should begin his education. It declined to hand over to the Council the right to say what its students should pass in before they began their medical education. Now here were two subjects on one of which members of the Council were absolutely agreed and on the other of which there was the greatest difference of opinion. Until the Government was willing to suppress the views of the Royal Colleges it would be impossible to raise the money in the way now proposed. The other course which he suggested would be infinitely more satisfactory. He believed that the reasons why the Council found difficulty in getting a grant of public money was that it did not state clearly and distinctly enough the public duties which it performed and which ought to be paid for by the public. They could not convince the Government and the House of Commons in a single discussion. The facts of the case must be repeatedly pointed out.

Dr. LITTLE said that he could not vote for Sir John Moore's motion. He would never have supported this proposal on pecuniary grounds. He supported it because he thought that the establishment of a proper registration of medical students lay at the very foundation of the reform of medical education.

Mr. ARTHUR THOMSON supported the amendment of Dr. Mackay. He said that his reason for doing so was that it provided the University of Oxford with information which was not furnished to them when the motion of May 30th was published. They were told that a Bill was to be introduced. Reference was made to some discussion which had taken place *in camerâ*. Of course it could not be made public, but it seemed from what they read in the public prints that in order to give effect to this resolution the Council proposed to take entire control not only of the examinations in general knowledge but of the examinations in science also—(Several members: No)—of preliminary science, he believed. If they looked at the debate there was a reference to this. The University were inclined to regard this as rather an excessive zeal on the part of the Council and since the Act had been quoted he might say that they were wishful, as far as in them lay, to improve the education of the medical student. They felt, however, that matters relating to his general knowledge and preliminary scientific knowledge were best left under their own control and that this Council was not a body altogether the best qualified to discuss that matter. They might have been wrong in all that. They had had no information supplied to them, and he was grateful to think that there was some intention now to furnish them with information, if Dr. Mackay's amendment were carried. What the University of Oxford did was to address a letter to the Lord President and he was pleased to be able to state that the reply furnished by the Lord President of the Council to it was entirely satisfactory. He (Mr. Thomson) thought that it would further the interests of the education of medical students if the Council would let the University know what it proposed to do instead of waiting till the last moment and letting its Bill be opposed in Parliament. He was very pleased that Sir Victor Horsley was prepared to support the amendment that some further information should be given. That was really all that was wanted. He was not going to say that the University of Oxford was going to oppose until it knew what the actual position of affairs was. The reply of the Lord President was so satisfactory that so far it had not any further concern in the matter.

At this stage the debate was suspended till the following day, leave being given to Sir John W. Moore and Dr. Mackay to place their motions in an altered form on Thursday's programme.

The Council then adjourned.

THURSDAY, NOV. 24TH.

The Council resumed on Thursday.

Medical Companies Bill.

On the motion of Dr. MACALISTER Sir CHARLES BALL was added to the Medical Companies Bill Committee.

The Case of Mr. Herbert Du Cane.

The Council thereafter proceeded to deal with the case of Herbert Du Cane, registered as of 56, Bolton-road, Darwen, Lancs., Lic. Soc. Apoth. Lond., 1890, who had been summoned to appear before the Council to answer the following charge, as formulated by the Council's solicitor:—

That you abused your position as a medical man by committing adultery with a patient—namely, Mrs. Taylor, a married woman, whom you had been and were attending professionally.

Mr. Du Cane did not present himself.

Mr. T. ROTHWELL HASLAM, solicitor, London, who represented Mr. Taylor, the husband of the woman, stated that the complainant was the secretary of the Medical Council for Darwen.

Mr. ELLIS J. GRIFFITH appeared on behalf of Mr. Du Cane.

The PRESIDENT: Can you give any reason why Mr. Du Cane is not here?

Mr. GRIFFITH replied that his client was not in this country. Mr. Du Cane was in Australia and as he only received notice of these proceedings on Nov. 7th he (Mr. Griffith) asked that the case should be postponed. He felt sure that the Council would be willing to hear any defence that Mr. Du Cane might desire to put on record.

The PRESIDENT asked if Mr. Haslam had anything to say in regard to this application for postponement.

Mr. HASLAM said his instructions were to leave the matter in the hands of the Council.

After the Council had deliberated *in camerâ*,

The PRESIDENT said: Mr. Griffith, the Council has considered the request that you have made to it and it has decided to adjourn the case until the May meeting of the Council, but I must point out to you that it is very desirable that any answer that Mr. Du Cane wishes to lodge with us in connexion with the charge should be given to our solicitor at as early a date as practicable.

Mr. GRIFFITH: That information will be conveyed to my client.

The PRESIDENT: That closes the case for the present.

The Case of Mr. Richard Henry Darwent.

Consideration was resumed of the case, adjourned from May 26th, 1904, of Richard Henry Darwent, registered as of Rokeby, Newington, Hull, Yorks, with the triple qualification of Scotland, 1893, who had been summoned to appear before the Council to answer the following charge, as formulated by the Council's solicitor:—

That you abused your position as a medical man by committing adultery with a patient—namely, Mrs. Spink, a married woman, whom you had been, and were, attending professionally, of which adultery you were found guilty by the decree of the Probate, Divorce, and Admiralty Division (Divorce) of the High Court of Justice, made on the 29th day of October, 1902, in the cause of Spink *v.* Spink, Benson, and Darwent, in which you were one of the co-respondents.

Mr. Darwent appeared accompanied by his solicitor, Mr. F. W. Hill. Mr. Spink was present also, but Mrs. Spink, the complainant, was absent. Mr. M. P. Oldfield appeared on her behalf.

The minutes of the proceedings on the case in May were read. From these it appeared that on an objection raised by Mr. Muir, counsel for Mr. Darwent, the Council ruled:—

That cross-examination and evidence must be confined to the question raised by the notice of inquiry—namely, whether Mr. Darwent committed adultery with a patient whom he had been and was attending professionally and that the Council cannot receive in evidence a statement in Mrs. Spink's answer alleging misconduct by other persons.

Mr. Muir announced that in these circumstances he would have to withdraw from the case if it were then proceeded with and he asked that the hearing might be adjourned in order that he might take steps for the prohibition of the inquiry. Thereupon the Council adjourned the case until November to give counsel for the defence an opportunity of taking such steps as he might think necessary to question the Council's decision. Mr. Muir promised to take prompt steps and also to raise the question of the admissibility of Mrs. Spink's statutory declaration in her absence.

The PRESIDENT asked Mr. Hill whether steps had been taken.

Mr. HILL replied that no steps had been taken. On consideration of the matter the question of expense arose. After every effort had been made Mr. Darwent found it impossible to raise the necessary funds which would be required to fight such a question against the General Medical Council and eventually the course originally proposed had to be abandoned. Before the Council proceeded further he would ask for another postponement so that Mr. Muir, who was engaged elsewhere, might be in a position to attend.

Mr. MUIR MACKENZIE suggested that some other counsel might have been instructed, seeing that Mr. Muir could not be present.

Mr. HILL said the question of expense had prevented that course. Mr. Darwent was not carrying on practice in Hull, although he was so described, for his circumstances were very straitened.

The PRESIDENT announced that the Council had decided that the case must proceed.

Mr. HILL: I bow to your ruling.

Mr. OLDFIELD then read two confessions made by Mr. Darwent.

Mr. HILL said there could be no doubt that the offence had taken place and if upon the admissions read the result must follow that Mr. Darwent's name should be removed from the Register he should say nothing more. In May Mr. Muir had thought that the Council in considering the case, even upon such facts as were submitted, would also take into consideration the circumstances in which the offence had been committed. The Council decided otherwise. Up to the time of these divorce proceedings Mr. Darwent had the confidence of the members of the medical profession in Hull. Mr. Darwent was not the only co-respondent in the case and in the divorce proceedings the claim for damages against Mr. Darwent was withdrawn—a most significant fact. The decree *nisi* was pronounced as long ago as October, 1902. No complaint from the time till now had been made by Mr. Spink who was presumably the injured party. It was not until April of this year that the matter was brought to the attention of the General Medical Council and it was brought not by Mr. Spink but by Mrs. Spink. Even now Mrs. Spink, although advised by her solicitor to be present, had not appeared before the General Medical Council. Having, however, made the admission on Mr. Darwent's behalf which he had been compelled to make he would only plead that for his fault Mr. Darwent had been punished and that the Council should temper its justice with mercy.

The Council considered the case *in camerâ*. When the parties and the public were readmitted

The PRESIDENT, addressing Mr. Darwent, said: The Council has deliberated on your case. It judges you to have been guilty of infamous conduct in a professional respect and it directs the Registrar to erase from the Register your name.

Mr. Darwent then withdrew.

Invalid Certificates.

The next business was the consideration of communications remitted to the General Medical Council by the Executive Committee from the Medico-Political Committee of the British Medical Association, forwarding a communication from the Education Committee of the borough of Bootle in regard to the giving of a medical certificate by a local chemist and druggist in the case of a girl unable to attend school:—

British Medical Association, Medico-Political Committee,
Medical Secretary's Office, 429, Strand, W.C.,
May 2, 1904.

DEAR SIR,—The enclosed letter and certificate having been brought to the notice of the Medico-Political Committee of the Association, I am instructed to forward them to you in order that they may be laid before the General Medical Council.—I am, yours faithfully,

J. SMITH WHITAKER, Medical Secretary.

H. E. Allen, Esq., LL.B., Registrar,
General Medical Council.

Borough of Bootle Education Committee,
Elementary Education Department,
Offices: Balliol and King's Roads,
Bootle, Feb. 18th, 1904.

DEAR SIR,—In a letter dated the 8th June last I brought under your notice the case of a document purporting to be a medical certificate given by a local chemist and druggist in this district. I have now to bring under your notice a similar case in which Mr. Procter Williams, chemist, carrying on business at 123, Derby-road, Bootle, has filled up a medical certificate form in respect of a child in this district, which form I enclose.

Yours faithfully,

J. W. WILSON, Sec. for Elem. Educ.

The General Secretary, British Medical Association.

The Executive Committee on May 24th, 1904, resolved:—

That the attention of the Medico-Political Committee of the British Medical Association be called to Section 37 of the Medical Act, 1858; that they be informed that on the face of it the certificate forwarded to the Council appears to be invalid under that section, and that the Council has no jurisdiction over chemists who give invalid certificates.

The following further communication had now been received from the Medico-Political Committee of the British Medical Association:—

Medical Secretary's Office, 429, Strand, W.C., July 5th, 1904.

SIR,—The Medico-Political Committee of the British Medical Association has carefully considered the resolution of the Executive Committee of the General Medical Council, communicated by the Registrar of the Council on May 25th, concerning the matter of a medical certificate of unfitness to attend school which was given by a chemist at Bootle, referred by the Education Committee of the Borough of Bootle to the British Medical Association, and by that body brought under the notice of the General Medical Council.

I am instructed to state that the Medico-Political Committee in bringing the certificate to the notice of the General Medical Council was well aware that such a certificate is invalid under Section 37 of the Medical Act, 1858.

The mere statement, however, of this fact does not appear to the Medico-Political Committee to constitute a sufficient recognition by the General Medical Council in this case of the duties to the public as well as to the medical profession which are intrusted under the Medical Acts to the Council.

It appears to the committee that the issue of such a certificate by a person not registered as a medical practitioner is an infringement of those privileges of registered medical practitioners which Parliament, by the Medical Acts, created for the protection of the public, and that it is a fraud upon the public of a kind which the Council may reasonably be expected to use every effort to have punished and thereby prevent its repetition.

The reply of the Executive Committee appears to the Medico-Political Committee of the British Medical Association to indicate a failure to appreciate the true position of the question submitted for the consideration of the General Medical Council.

I am therefore instructed to express the hope that the subject of this letter may receive the attention of the Council at its next session.

I am, Sir, your obedient servant,

J. SMITH WHITAKER, Medical Secretary.

Sir William Turner, K.C.B., M.B., President,
General Medical Council.

Sir VICTOR HORSLEY said that upon this correspondence he should like to state that it was within his knowledge that nothing active could be done by the Council in this matter for the reason that the person who was issuing these invalid certificates had left Bootle and could not be traced. That information was laid before the Medico-Political Committee of the British Medical Association. The object that committee had in view in making this application was to obtain from the General Medical Council an expression of the opinion of its legal advisers as to what could be done to protect the public and the profession in this matter. It was a very serious question. As Mr. Muir Mackenzie was present perhaps he might make a statement upon it.

The PRESIDENT said that he would ask the chairman of the Business Committee to state the matter from the point of view of the Executive Committee, because the Executive Committee referred Mr. Whitaker to Section 37 of the Medical Act and he seemed to challenge the accuracy of the reference.

Sir VICTOR HORSLEY said that he felt very warmly about the resolution of the Executive Committee. He considered that it was not a courteous reply to the Association, and for this reason: the members of the Medico-Political Committee of the British Medical Association were practitioners who were intimately concerned with the issue of these certificates. They sent this matter to the General Medical Council for a deliberate legal expression of opinion and they were told to look at Section 37 of the Act of 1858. It was a breach of that section that the committee was complaining of, and yet it was simply told that on the face of it the certificate appeared to be invalid under the section.

The PRESIDENT: I think you are attacking the Executive Committee and it is proper that the Council should have the opportunity of hearing from the chairman of that committee what was in their minds when the resolution was agreed to. Then, Sir Victor, you can comment upon it.

Sir VICTOR HORSLEY: I ask for an expression from Mr. Muir Mackenzie on the legal point. I am quite ready to go into other points afterwards.

The PRESIDENT: I call upon Dr. MacAlister.

Dr. MACALISTER explained that the matter came before the Executive Committee. The committee did not act without legal advice. It was pointed out to it that Section 37 apparently conferred upon medical practitioners the power of granting what were called valid certificates but no penalty was attached to the granting of invalid certificates and no offence was created by granting invalid certificates. Therefore the committee was informed that no offence that it could take cognisance of had been committed. The Medico-Political Committee did not think that that answer was sufficient. The Executive Committee thought it was not proper that it should enter into any controversy with the Medico-Political Committee and without further consideration it referred the matter to the whole Council.

The PRESIDENT: In the mind of the Executive Committee the question of want of courtesy never arose.

Sir VICTOR HORSLEY: I accept that of course, but the resolution as it stands was commented upon very severely by the Medico-Political Committee and I could not help sympathising with it.

Dr. WINDLE said he was perfectly familiar with the way in which these certificates under the Education Act were presented. Some came from medical men and many medical men kept printed forms. The educational authorities themselves had sometimes issued forms and he tried to get them to do so in Birmingham. Personally, as a medical man he had always refused to look at any certificate which was not signed by a member of the medical profession. About the present case, he asked whether the chemist had signed the certificate as a medical man or as a chemist and druggist. In the latter case it was an opinion expressed by a lay person as to the condition of some sick child which might or might not be accepted by the educational authority. It would be a very difficult thing to raise a legal objection to the acceptance of a certificate of this kind.

Sir WILLIAM THOMSON observed that in the case referred to the child was evidently taken to a person not of the family to obtain an opinion which was supposed to be a skilled opinion as to the child's sickness. He had heard that chemists and druggists did not always keep themselves to their legitimate sphere of operations. That was an objectionable thing. If these gentlemen were to be brought in to give a medical opinion on a case then he thought that it was a very serious matter. However, nobody would think for a moment that a medical man was to be brought into every case where a mother and father supposed a child was unfit to go to school.

Dr. LINDSAY STEVEN said that he had had to consider this question in Glasgow in connexion with a department of his work. However, with regard to what had fallen from Sir William Thomson, he thought his remarks were based upon an assumption—namely, that the person purporting to give the certificate wished it to be understood that he was a registered medical practitioner.

Mr. JACKSON mentioned that at Plymouth certificate forms were in use.

Dr. MACALISTER said that the certificate in question—as far as he remembered—did not in the slightest degree purport to be given by a medical man.

Dr. CATON pointed out that primary education authorities had not an organised system of certificates. At the present time certificates were received from nurses and all sorts of people in the absence of any proper methods of medical supervision. There was really no definite provision on the subject. He did not see that they could do anything which would remedy the matter in the meantime but they hoped that the various school authorities would provide a remedy for it before very long.

Sir VICTOR HORSLEY said he wanted to be informed whether they could or could not be protected in this matter. If they could not be, well and good. They would know where they stood; but let them have legal opinion on the question.

The PRESIDENT: I do not think Mr. Muir Mackenzie could give us offhand an opinion.

Sir VICTOR HORSLEY: Then I shall be glad to put my question in writing.

The PRESIDENT: It involves not only looking into the Medical Act but also into the Education Act.

Sir VICTOR HORSLEY: There is nothing in the Education Act.

The PRESIDENT: I feel I cannot press Mr. Muir Mackenzie to give an offhand opinion.

Dr. PYE-SMITH thought that the matter was a very simple one. These certificates were received by the education authorities who were authorities over whom the Council had no power and influence. They thought very foolishly that a certificate of illness could be given by a chemist or druggist or by other persons who were not medical men. That was a great mistake but many of their fellow countrymen thought that an illness was as well intrusted to a quack as to qualified medical men. He hoped that very soon they should be able to make it penal for anyone who was not on the Medical Register to treat a man, woman, or child for any illness which required medical advice.

Mr. MUIR MACKENZIE stated that he would be very glad to give on the following day his answer in writing to the legal point which had been put to him.

Registration of Students.

The debate on Sir John W. Moore's motion on the registration of students was resumed. The motion now appeared on the programme of business in the following terms:—

That a copy of the resolution of May 30th, 1904, be sent formally to every licensing body in the United Kingdom, with a request that every such body should favour this Council with their views upon the

subject, and that the Lord President of the Privy Council be informed that this Council has placed itself in communication with all the licensing bodies on the subject of a proposed Medical Bill and will in due course inform the Lord President of the result.

The amendment to Sir John W. Moore's motion, which was proposed by Dr. Mackay and seconded by Sir John Batty Tuke, now appeared on the programme, with the permission of the Council, in the following altered terms:—

(1) That the Lord President of the Privy Council be informed that, in the opinion of the Medical Council, it would not be expedient at the present stage to confer with the Royal Colleges on the subject of the resolution of May 30th, 1904.

(2) That before proceeding further in the matter a memorandum be prepared, setting forth the grounds on which the Council is acting in reference to the resolution, and giving the specific proposals which the Council thinks should be embodied in the contemplated Bill.

Sir WILLIAM THOMSON, who resumed the debate, said that the matter now under discussion had really come before the Council in connexion with its finances. The Council was in a very bad financial state. At least he might say its prospective finances were unsatisfactory and he learned that in seven or eight years, after all the economies which had been carried out, it would have come to the end of its floating capital. In a previous session it was proposed that the sum payable by the qualified man in seeking entrance to the Register should be raised to £10. That principle was adopted by the Council by a very large majority. Then the matter went to the committee on finance but it suggested that the amount of increase should be only £2, making a total fee of £7. The question then came to be whether the Council could not get the money by a registration fee on students. He might say in this connexion that he was sorry that the English Colleges had taken umbrage at the suggestion and had displayed, he thought, a certain amount of annoyance at the suggestion which had come from the Council. He did not desire to make any charge, but he was sorry for that, because both those bodies had always recognised the importance of registration, although they would like that the registration should not be placed in the hands of the Council. This proposal had raised their suspicions that the Council sought to seize hold of, and to control, them in a Bill. Whatever the effect of the carrying of the present motion might be, he might say that they had no such design. It was a matter of money. It was proposed by Sir John W. Moore that the matter should go back to the Colleges for further consideration, but he rather agreed with Sir Victor Horsley's view of the whole question. This Council was really a conference. This body was made up of the representatives of all interests concerned in medical education and he did not think that they could better arrive at a conclusion than through it. However, he was surprised that the Royal College of Physicians of Ireland passed a resolution disapproving of the proposal to register the student, but he was sure that if they had had a conversation explaining matters the result might have been different. Well, it seemed that the Council was getting into a sort of a deadlock and he thought it would be a great matter if it was possible for them to see if they could get out of it. It would be a great matter that they should get to an end of these periodical—or perhaps he should say these continued—conflicts between the Council and the licensing bodies. It would be better for them to consider by means of a committee whether they could not come to an agreement with these bodies—an agreement which must always end in maintaining the position of the Council with regard to the general question of education. Licensing bodies were continually coming into conflict with the Council and disputing its powers and this led to recriminations in the Council and outside. This created a very bad impression outside and that impression would perhaps have a very disastrous effect. He deprecated these conflicts and he was very anxious that some means might be found by which the Council and all the licensing bodies could get along a little more smoothly, the Colleges recognising the supreme rights of the Council and remembering that the Council had no desire to interfere with, or to infringe, any charter or privilege of right which they possessed.

Mr. BROWN said that the Council was now being called upon to reverse a step taken last session. Nothing had occurred which would justify members taking a step backwards. They were now asked to send a letter to the Privy Council rescinding their resolution of May and saying that their action on that occasion was not taken in knowledge of the facts of the case or in knowledge of the hornet's nest they were to raise about their ears. What they had done was done in the interests of the corporations themselves.

Dr. NORMAN MOORE observed that the Colleges had raised no opposition. Every corporation had the right to be heard before the Privy Council on an occasion like this. The College of Physicians had asked to be heard in common with the University of Oxford and the College of Surgeons.

Mr. BROWN, continuing, said that he did not wish to detract from the power of the Colleges in the slightest degree when the Bill was presented to Parliament. The colleges on this occasion were a little too previous. They were crying out before they were hurt. This Bill might preserve all their rights and privileges and their musty charter would have the greatest respect paid to it. Until that Bill was prepared and placed before the Council the whole of the present discussion was not *ad rem*. The Council had decided upon its reasons which would be explained through its able representative, Sir John Batty Tuke.

Sir JOHN BATTY TUKE: No, no.

Mr. BROWN, continuing, said that he hoped that they should not be deserted by those in their camp when the day of trial came. He saw no grounds which had made their Member of Parliament say "No" to their reasonable requests. It had been pointed out by Sir William Thomson that the corporations were represented at the Council. He (Mr. Brown) would defend the interests of his College and he would do so by supporting the action which the Council had taken last session.

Mr. JACKSON said that the subject which they were discussing was really divided up into two questions: one was money and the other was registration. Would it not be possible to have a scheme which would allow the different bodies to register their own students and some arrangement to be come to by which the Council might get the fees? The difficulty would then be overcome.

Dr. LITTLE said that they were waiting for the Privy Council but the Privy Council had told them that it was not going to initiate any movement at the present time. He thought the best course for the Council to take was to pass one of the motions before it. Both appeared to him to aim at the same thing but he thought that Dr. Mackay's would be productive of the best result.

Dr. MCVAIL asked the President whether the amendment of Dr. Mackay was really one amendment or two.

The PRESIDENT said that when a motion was divided, as this one was, into two parts they might take a division on one part and then on the other. It was also within their power to take it as a single motion. This would be a matter for the Council to determine.

Dr. MCVAIL observed that he intended to vote against the first part. The Council passed a resolution by a very large majority asking the Privy Council to do something for it. The Privy Council replied and asked the Medical Council to confer with two Colleges. He would say to members that he could not see why they should not confer with these two Colleges. He was not going to assume that these two Colleges were going to pursue any particular course. It was the duty of the Council as a body subordinate to the Privy Council to fulfil its desire and direction. What right had members to assume that the result of the conference would be a fiasco? Was it not likely that the conference would be able to minimise the difficulties which had arisen?

Dr. MACALISTER said that he should like to say a few words about the amendment, because he would support it. It was the right course to take at the present stage. It was suggested to them in the letter addressed to the General Medical Council by the clerk of the Privy Council that they should confer with the Colleges. He thought that it was not expedient at the present stage to confer with the Colleges because they might not be the only bodies before the Privy Council. They had other bodies to confer with. Further, the General Medical Council had not agreed upon a basis of conference, and he took it that the second part of Dr. Mackay's amendment was that they should formally draw up, discuss, and agree upon an exact statement of the reasons which they had in their minds for the proposals they made and of the specific clauses in the Bill. Until they had done that they were not in a position to confer with any body or to give a definite statement to the Privy Council. At present they seemed to be in the dark. At present they had not stated what the proposals were. At the same time he would like to say that he was very sorry that of the alternatives which were put forward to the Council by way of improving its organisation and extending its finances, the wrong one was chosen. He still maintained that with

all proper respect for the Privy Council it was right that they should be more explicit in their resolution. In order that they should clear their own minds and those of the Royal Colleges and the University of Oxford they ought to draw up a memorandum of their proposals. Therefore he would support both parts of the amendment.

Sir JOHN MOORE said that he was thoroughly in favour of drawing up a memorandum and he suggested to Dr. Mackay to let the part of his amendment relating to the memorandum be embodied in his own motion. He thought that would cover the whole ground and would give the licensing bodies the opinion for which they asked and which they would not take from individual members of the Council. It was all very well to say that the Council was a representative body. He was a representative of the Royal College of Physicians of Ireland but it had made up its mind in total ignorance of the Bill. He thought that it would be open to conviction if it got a communication. He thought that both motion and amendment should be knocked into one resolution.

Dr. MACALISTER: The memorandum must be approved by the Council before it can be sent to anyone.

Sir JOHN MOORE: Of course, the memorandum must come up for approval.

Dr. MACKAY said that Sir John Moore had made an appeal to him which he would gladly have agreed to but for one circumstance. It was possible that after the Council had carefully considered this memorandum it might decide to take no further action and drop the whole proposal. It was only if they were generally agreed on a suitable course of action that they would pass on the information to other bodies. At present they had to make clear to themselves what they were going to do and then to submit that to other bodies. He therefore intended to keep to the form of his original proposal.

On a show of hands Dr. Mackay's amendment was carried by 17 votes against 5. Eight members did not vote and three were absent. The division list was as follows:—For, 17: Dr. MacAlister, Mr. Arthur Thomson, Mr. Tomes, Mr. Young, Dr. McCall Anderson, Dr. Mackay, Mr. Brown, Mr. Jackson, Dr. Bennett, Sir Victor Horsley, Sir George Philipson, Dr. Windle, Dr. Finlay, Sir William Thomson, Dr. Little, Sir Hugh Beevor, and Sir John Tuke. Against, 5: Dr. Norman Moore, Dr. Pye-Smith, Sir John Moore, Dr. Caton, and Dr. McVail. Did not vote, 8: The President, Mr. Power, Sir P. Heron Watson, Dr. Lindsay Steven, Dr. Barrs, Sir John Williams, Sir Christopher Nixon, and Dr. Bruce. Absent, 3: Mr. Morris, Sir Charles Ball, and Mr. Tichborne.

Dr. MACKAY'S amendment then became a substantive motion.

Sir CHRISTOPHER NIXON moved as an amendment—

That a reply be sent to the Privy Council stating that this Council now sees great difficulties from opposition by certain licensing bodies in asking the Lord President to introduce a Bill giving to the General Medical Council statutory power to establish and maintain registers of medical and dental students and to impose a fee not exceeding £1 for registration therein. The General Medical Council will be prepared at the proper time to offer an alternative proposition which it hopes may be approved of by the Lord President.

He said that they had just tided over the friction between the Council and the Royal Colleges and the conclusion was satisfactory. The Council at all events had gained its object in securing sufficient provision for a high standard being made in the first year of medical study and that was the starting point of the difficulty. Having smoothed over that difficulty they were now going to put on a strain by the introduction of this Bill. This might lead to a conference in obedience to the request of the Privy Council but before that conference could take place they had it stated in the letter of the Royal College of Physicians to the Privy Council that it objected altogether to the principle of having a fee for the registration of students. What was to be gained by a conference with a body which stated that it would not agree to what was proposed? It was proposed to go further and to invite an expression of opinion from the different licensing bodies throughout the country. He did not think they would gain anything by compulsory registration. He did not think they would carry it in the teeth of the Royal Colleges and the system was not essential. If they had a registration system carried on by the different licensing bodies, which should return the registration forms to the Council, they would effect what they wanted. The result of his amendment would be that the Council would take no further step in connexion with this registration of medical students. They ought to drop it altogether. He thought the proposal to get a small fee each year from members of the profession would be a better and more practical solution of the difficulty than the compulsory registration of medical students. What they would have a fair chance of carrying was the right to impose an additional £5 on every man who went on the Council's register. That would get them out of the difficulty. He would strongly urge the Council not to commit itself at the present time to any particular statement to the Lord President.

The PRESIDENT remarked that they had committed themselves to a statement last May.

Sir CHRISTOPHER NIXON: What we did in last May was to present a draft Bill. I understand that you, Sir, made a representation——

The PRESIDENT: No, no. There has been no draft Bill framed to my knowledge.

Sir CHRISTOPHER NIXON said that there was a draft Bill in the copy of their minutes which contained two provisions, one enabling them to raise the registration fee from £5 to £10 and another establishing compulsory registration of students with a charge of £1. If the Council did not absolutely pass that Bill it expressed its approval of it to a moderate extent. The part of that Bill which was least objectionable and most likely to pass was excluded from their consideration. His amendment, if carried, would enable them to discuss whether the real way out of the dilemma was to propose a one-clause Bill giving power to raise the existing registration fee.

Mr. THOMSON asked whether it would be consistent to support this amendment which was practically to rescind the resolution of May 30th, he having already supported Dr. Mackay's proposal.

The PRESIDENT said that it would not be inconsistent to vote for Sir Christopher Nixon's amendment if Mr. Thomson thought it was better than the other. Sir Christopher Nixon's amendment was practically to rescind the resolution to which the Council came on May 30th and for which Sir Christopher Nixon then voted.

Sir CHRISTOPHER NIXON: We have learned something since then.

Dr. BRUCE, in seconding the amendment, said that they had learned a great deal since May and he thought it had been made abundantly plain that if they wanted money they were not going to get it in this manner. In the interests of peace it would be well to drop this weapon they had taken up and were supposed to have forged for the sake of their friends.

Sir VICTOR HORSLEY said that he protested against Sir Christopher Nixon's amendment. Sir Christopher Nixon said they wanted money and he proposed to tax the practitioners on behalf of the licensing bodies. On behalf of the practitioner he protested against a proposal of that kind.

Dr. LINDSAY STEVEN said that the registration of the medical student was a most important matter and was of the greatest value to medical education. Up to the present the system in operation, which was practically voluntary, had worked very well indeed. In May last he was one of the majority who supported the motion of Sir John Batty Tuke, seconded by Sir Victor Horsley, and he should be prepared to do so again, but as had been said they had learned a great deal since then. At that time it seemed to him that it was on the direct invitation of the clerk of the Privy Council that they adopted that method of trying to increase their finances. Now they found that the Privy Council instead of heartily coöperating with the Council in this matter rather put on the brake. That being so he realised the difficulty of trying to promote a Bill such as was indicated in the May resolution, and he should be sorry if anything emerged which would endanger the voluntary registration of medical students which had worked so well up to the present. The two Royal Colleges and, though not so absolutely, the University of London were alone among the licensing bodies in not requiring their students to enter on the Students' Register. If they got into any Parliamentary conflict they would do great harm to medical education in this country and a great deal of what Sir Christopher Nixon had said appealed strongly to him. The best course would be for the Council to let the matter drop altogether and try to get the money in a different way. If they had some indication that they would go back to voluntary registration, and if the Royal Colleges would give them some reason to suppose that they would remove the regulation which did not require the

registration of their students, they would be able to work harmoniously.

Dr. NORMAN MOORE said that he would certainly vote for the amendment of Sir Christopher Nixon and he hoped it would be carried. This plan of taxing medical students and giving them absolutely nothing in return was utterly impossible. The Council had not the power to do it and it would never get the power. The public would never allow it. A great deal had been said of the value of this register but in the course of a long connexion with medical education he had been totally unable to perceive that great value. Every licensing body was bound to see that a student had studied for the required time and that he had passed the required preliminary examination. This register of students was merely a convenient attestation of those facts which could be equally ascertained without it. If the Council got the power to charge a fee it would be involved in a third more judicial proceedings than it was concerned with at present. The course of the Council was perfectly plain. It had only to convince the public that it was doing useful public work in all the days and hours of its meetings and Parliament would be perfectly willing to give it more money. The reason why the public and Parliament and the Government were unwilling to give the Council more money was that they doubted whether it was acting wisely.

The PRESIDENT: What is your evidence?

Dr. NORMAN MOORE said that the volumes of minutes were his evidence, and they had only to read them to see how the Council spent its time on matters which were never referred to it by Parliament and which were entirely beyond its sphere, how it tried to extend its supposed powers in every possible direction, and how, in regard to this register of students, all the qualifying bodies having agreed to help it in keeping a record it had got into difficulties by trying to extend its powers in directions which it had no power to do. (Several members: No.) So useful was the discharge of the powers really committed to the Council by Act of Parliament that he would be anxious in every way to obtain for it the proper means for discharging them and he believed that Sir Christopher Nixon's motion opened the only possible way of doing that.

Mr. BROWN asked Dr. Norman Moore to say whether the Royal College of Physicians of London had a register of students.

Dr. NORMAN MOORE said that when a candidate went up to the Royal College of Physicians he had to prove that he had passed the necessary preliminary examination in arts. He believed he was correct in saying that if he produced evidence that he had registered or if they received evidence, or equally if he produced the original certificates which satisfied the registrar of the General Medical Council, they would be satisfied. They did not print a list.

Mr. BROWN said that he wished to know if the Royal College of Physicians required registration from medical students at the present time. He believed that there was no such requirement and that the matter was intrusted entirely to the register of the General Medical Council.

Dr. NORMAN MOORE said that he had stated that registration by the General Medical Council was accepted as a proof of the commencement of medical study. It was not the only proof that was accepted.

Sir JOHN BATTY TUKE said that the remarks of Dr. Norman Moore had been made often before in that room. He had said that the evidence of the want of confidence on the part of the public and the profession was contained in the 40 volumes before them. He could recollect what medical education was more than 50 years ago and its condition now compared with then was mainly due to the influence and work of the Council. He also held that the production of such results within 40 years was highly creditable to the Council. They had been working on permissive laws. By an adroit use of gentle continual pressure on the various bodies they had brought all into line in the year 1904. He would not go into how that line was broken. He believed that the Council possessed the confidence of the public and of the profession except in places where influences were brought to bear which he did not think were justified by fact.

Dr. MACKAY said that he deeply regretted that Dr. Norman Moore had thought fit to oppose the establishment of a register. The proposal was to insure that every medical student should go through a sufficient course of medical education. It was for the sake of the public and of medical education generally that this work had been carried on and he felt sure that the Royal College of Physicians if asked whether it believed in the value and importance of a students' register would answer in the affirmative. He thought that it would be possible to convince the various bodies of the work that the Council was carrying on in supervising the education of students and to convince them that it could be carried on without infringing their privileges. They should therefore go forward in their efforts and carry out the resolution come to in May last and he could not accept the amendment.

Sir JOHN MOORE said that no matter what his personal convictions were, he knew that the opinion of the Royal College of Physicians of Ireland was exactly represented in the words of the amendment. Therefore he must vote for it, however reluctantly. He would have been glad if the Council could have given further information to the Royal Colleges of Ireland on the subject of the proposed Bill and it was a great pity that this was not done last May. As it was not done he must state that the temper of the Royal College of Physicians of Ireland was at fever heat on this subject.

Dr. MCVAIL said that their resolution was a combination of seeking to bring about compulsory registration and at the same time to get money. Anyone who had heard the debate would see that compulsory registration was not going to come in the immediate future; but they required more money in the immediate future, and therefore he thought that the very best thing that could happen was that the motion of last May should be practically rescinded by carrying Sir Christopher Nixon's motion. He should hope that next May the Financial Relations Committee would bring up a motion dealing with the question as apart from any other contentious question and that they should simply endeavour to get money from the Government or, it might be, by increasing the present registration fee or getting an annual contribution. Tacking the money question on to any other big principle again would, he thought, be wrong. The two subjects should be dealt with separately and he hoped that Sir Christopher Nixon's amendment would be carried by a large majority.

Sir CHRISTOPHER NIXON, in reply to the discussion, said it was impossible to conceive that in the near future the Council would be able to carry a scheme of compulsory registration. He was sorry that in the heat of debate Dr. Norman Moore used words in regard to the action of the Council which were scarcely justified. He had forgotten for the moment that the Council acted under very restricted powers. If it had full statutory powers, which it ought to have considering the nature of its composition, a great deal of money would have been saved in preventing debates where there was considerable division of opinion.

On a show of hands Sir Christopher Nixon's amendment was carried, against Dr. Mackay's proposal, by 15 votes to 10, four members not voting and four being absent. For, 15: Dr. Norman Moore, Mr. Arthur Thomson, Dr. Pye-Smith, Sir John Moore, Dr. McVail, Sir P. Heron Watson, Dr. McCall Anderson, Dr. Lindsay Steven, Dr. Barrs, Sir Christopher Nixon, Dr. Bennett, Sir George Philipson, Dr. Windle, Dr. Bruce, and Dr. Little. Against, 10: Dr. MacAlister, Mr. Tomes, Dr. Mackay, Mr. Brown, Mr. Jackson, Sir Victor Horsley, Dr. Finlay, Sir William Thomson, Sir Hugh Beevor, and Sir John Tuke. Did not vote, 4: The President, Mr. Power, Dr. Caton, and Mr. Young. Absent, 4: Mr. Morris, Sir Charles Ball, Mr. Tichborne, and Sir John Williams.

Sir CHRISTOPHER NIXON'S amendment then became a substantive motion and discussion was resumed.

Sir VICTOR HORSLEY said that if the Council chose to stultify itself he must take the opportunity of dissociating himself from the stultification.

Dr. LINDSAY STEVEN, on a point of order, asked if Sir Victor Horsley was right in saying that in changing their opinions members of the Council were stultifying themselves. He did not feel inclined to sit under that.

Sir VICTOR HORSLEY said he was applying his remarks not to members of the Council but to the action of the Council as a whole. He trusted his remarks would be received in proper seriousness. He wished to explain why he dissociated himself from the vote just given. Since 1864 the Council had always considered that "the registration of medical students if properly conducted is a matter of primary importance as giving security to the Council and to the profession." Surely a matter of primary importance was not

to be decided upon properly at one session of the Council and thrown out at the next session by a resolution in the terms of that of Sir Christopher Nixon. It was not proper, in his opinion. If the matter of registration was of primary importance, if they went to the Privy Council and said that hitherto they had conducted this registration with the loyal cooperation of the licensing bodies on the voluntary system, and if they said that certain licensing bodies, mindful of their own interests much more than the interests of the profession and the public, refused to compel those working for their diplomas to register at the Council's office, then they bound themselves to the request to the Privy Council that for this step of primary importance to the profession it was needful that registration should no longer be voluntary but compulsory. What would the Privy Council think when it received the resolution which had just been agreed to? He could not tell. He supposed it would imagine that the Council had changed its mind on a matter which was formerly regarded as of essential and primary importance. He could not see how the Privy Council would listen with any respect to anything they said. He might quote again from the proceedings of the Council in 1864—viz., "That the several licensing bodies be requested after October, 1868, to abstain from examining any candidate for licence or degree whose name does not appear on the authorised list of the medical students." Dr. Lindsay Steven had said that the voluntary system was going on perfectly well up to the present time. It had been extracted from Dr. Norman Moore that voluntary registration had wholly broken down.

Dr. NORMAN MOORE: No.

Sir VICTOR HORSLEY said they knew it had broken down. The Royal Colleges claimed their right to refuse this registration. They knew it had broken down. If so, what became of that which the Council had for 30 years considered a matter of essential and primary importance? The waste-paper basket was the destination of the registration of students and the Council had voted in favour of throwing its resolution into the waste-paper basket. Stultification was not too strong a word in his opinion and he was certain it would not be too strong in the opinion of the medical profession. He was afraid this was a vote which might be rescinded on a moment's notice, just as the vote of May 30th had been rescinded. The only thing many of them could do was to rise and to dissociate themselves as far as possible from having taken part in such a vote.

Dr. MACKAY associated himself with Sir Victor Horsley. It was unfortunate, he said, that the financial element was connected with the question of establishing a students' register. They must, of course, accept this decision of the Council in so far that they must dissociate the financial question from the other. He would propose that the Council should go forward as definitely and strongly in its efforts to establish a students' register as ever it did. He was certain that the whole profession, Royal Colleges included, would be at one with them if they stated their grounds clearly and persisted in their policy.

Mr. BROWN entered his protest against passing this resolution. He should have thought it would be proper to refer the matter back to the Executive Committee.

The PRESIDENT: We must give an answer to the Lord President whatever the answer may be.

Sir CHRISTOPHER NIXON, replying on the discussion, said they had a perfect system of registration though purely voluntary in its character. But while Sir Victor Horsley attached such extreme importance to the question of compulsory registration, it was in order to get the power of controlling absolutely the conditions under which a student entered on the first year of his studies that this question of compulsory registration had been raised. This would wreck their chances of getting any financial aid if persisted in. The system of registration which the Council adopted at the present time was carrying out as fully its views in regard to students' registration as would any of the motions which were proposed but not carried.

A show of hands resulted in Sir Christopher Nixon's proposal becoming the ultimate finding of the Council, 14 members voting for and 10 against, 5 abstaining from voting and 4 being absent. For, 14: Dr. Norman Moore, Mr. A. Thomson, Dr. Pye-Smith, Sir John Moore, Dr. McVail, Sir P. Heron Watson, Dr. McCall Anderson, Dr. Lindsay Steven, Dr. Barrs, Sir Christopher Nixon, Dr. Bennett, Sir George Philipson, Dr. Windle, and Dr. Bruce. Against, 10: Dr. MacAlister, Mr. Tomes, Dr. Mackay, Mr. Brown, Mr. Jackson, Sir Victor Horsley, Dr. Finlay, Sir William Thomson, Sir Hugh Beevor, and Sir John Tuke. Did not vote, 5: The President, Mr. Power, Dr. Caton, Mr. Young, and Dr. Little. Absent, 4: Mr. Morris, Sir Charles Ball, Mr. Tichborne, and Sir John Williams.

The Five Years' Curriculum.

Dr. LINDSAY STEVEN moved:—

That it be remitted to the Examination and Education Committees to consider and report to the next session of Council whether the adoption by the Council of one or other or both of the following resolutions would not help to secure the attainment of the object the Council had in view in instituting the five years' curriculum, viz.:—

(1) That the preliminary scientific examination in physics, biology, and chemistry should be passed before the student begins the qualifying study of anatomy and physiology.

(2) That before being admitted to the final examination the student should produce evidence that he has devoted the last year of his curriculum exclusively to practical and clinical work and study.

He said the five years' curriculum was made a requirement by the Council on May 29th, 1893, and it was arrived at after long deliberation and debate and much consultation with all the licensing bodies. The object the Council had in view in recommending a five years' curriculum and then making it a requirement was to be found in the report which preceded the establishment of the requirement and in the minutes. From one report in 1890 he found there was a resolution passed that the course of professional study after registration should occupy at least five years, on condition that the fifth year should be devoted entirely to clinical work as subsequently defined. In 1893 they found in the minutes that the regulations of the Council were so made that the fifth year should be entirely devoted to clinical work. In the 11 years that this fifth year had been a requirement, had the object which the Council had in view ever been fully or entirely attained? He thought it was the general experience of teachers throughout the country that the fifth year had almost always been encroached upon by studies other than clinical and practical studies and that the object for which the fifth year was added had never really been attained. No one could have listened to the important debates which took place last session on the subject of preliminary scientific matters without being impressed with the fact that the medical curriculum was very heavily burdened indeed and particularly in the earlier years. On going through the whole subject he found that some matters had already been before the Council in this direction. He was inclined to consider the question whether another year should be added to the curriculum in order to give the students time for the large amount of work before them, but he thought the Council would agree that the time had not yet come when it could propose that another year could be added. Therefore he had formulated the two proposals which he submitted for their consideration. With regard to the first he found that it had been proposed to the Council before and from 1900 to 1901 it was actually a regulation of the Council that the professional examination should if possible be passed before the second year of preliminary study. He also found that Dr. Bruce and Sir Charles Ball also had brought forward motions of a similar character in order to insure that those studies should be got out of the way before the proper medical studies commenced. He found that the regulations of the Royal Colleges in England made a distinct regulation that no anatomy or physiology would be counted as part of the curriculum until the preliminary scientific subjects had been passed. With regard to his second proposition, he could not find that it had ever been stated in the Council before. Certainly if a student were required to bring evidence that he had exclusively devoted the last year of his studies to clinical and practical work they could then be certain that the object of the five years' curriculum was attained. Possibly the student might not be able to do it in five years but the Council had considered that if the work were divided properly he could do it in five years. Sir William Gairdner had done him the honour of contributing his opinion on the matter and he might read a few sentences from his letter as part of the argument. He wrote: "You will find, I think, in the minutes of the General Medical Council that some years ago Dr. Bruce and Mr. Ball proposed separate motions, either or both of which I supported, to deal with the difficulty of preliminary examination by interposing another examination before commencing the regular course, but this would not, I think, avert or cure wholly the evil that you and I have in view as regards the five years, that

is, the shunting of the practical departments, especially medicine, through the overgrowth of the scientific, especially physiology. There is no doubt that the latter have managed among them to spoil the fifth year for practical and clinical purposes, and to absorb it all, contrary to the original intention, into the scientific. The only way of saving the fifth year now, I think, would be to insist that whether it is called fifth, sixth, or seventh all the examinations except the clinical should have been passed before it is allowed to be counted. But whether this is practicable or not it is for you and the General Medical Council to say." He (Dr. Steven) thought that the second proposal would be more effective in gaining the desired end, but seeing that the other proposal had previously been before the Council and considering that he was not asking the Council to pass a motion but to make a remit he thought it right to include both suggestions.

Dr. MCCALL ANDERSON formally seconded the motion, reserving the right to speak when the discussion was resumed.

The Council then adjourned till the next day.

FRIDAY, NOV. 25TH.

The session was resumed to-day, Sir WILLIAM TURNER, the President, being in the chair.

Letter from the Pharmaceutical Society.

The PRESIDENT said he thought it right to call attention to a communication that had been received that morning from the secretary of the Pharmaceutical Society of Great Britain in reference to the medical certificate which was stated to have been given by a chemist and druggist in Bootle. This letter would now be read.

The REGISTRAR (Mr. H. E. ALLEN) read the letter which was as follows:—

17, Bloomsbury-square, Nov. 25th.

SIR,—I notice in the reports of the proceedings of the General Medical Council that a discussion took place in regard to the action of Mr. Procter Williams of 123, Derby-road, Bootle, who had filled up a medical certificate form in respect of a child in the Bootle district certifying that the child was unable to attend school. In the report above alluded to I find that Mr. Williams is described as a chemist and druggist, but on referring to my official Register I do not find that name appearing thereon. Would you be so good as to communicate to the Council to-day the fact that the person concerning whom the complaint is made is not a person who is entitled to the description of chemist and druggist?

It was agreed to keep a record of the letter as a note to the minutes.

Procedure in Penal Cases.

The Council next considered the following memorandum, prepared by Mr. Muir Mackenzie at the request of the Executive Committee, in regard to the question of embodying in the Standing Orders a certain rule of procedure laid down by the Penal Cases Committee for its guidance:—

As regards the form and contents of statutory declarations the following proposed new standing order is framed on the basis of the rules which prevail in the Supreme Court and is adapted from those rules so as to apply to the procedure of the Council in penal cases.

After Clause 3 of Standing Order XIV. insert as a new clause:—

"Every statutory declaration must state the description and true place of abode of the declarant, and where a fact stated in a declaration is not within the personal knowledge of the declarant the source of the information and grounds for the belief of the declarant in its truth must be accurately and fully stated.

"Declarations and parts of declarations which are made in contravention of this rule will not be accepted as evidence."

On the motion of Dr. MACALISTER, seconded by Sir VICTOR HORSLEY, the proposed new standing order was agreed to.

At the May meeting it was agreed:—

That it be remitted to the Executive Committee to consider and draft an instruction to the Penal Cases Committee requiring them to ascertain in each case from the person or persons who have lodged a complaint against a practitioner whether the complainant or complainants have brought under the notice of the practitioner charged their disapproval of his conduct.

In consequence of that resolution the Executive Committee requested Mr. Muir Mackenzie to prepare a memorandum and the memorandum in the following terms was now submitted to the Council:—

The cases which come before the Penal Cases Committee for consideration may be shortly divided into two classes—namely, first, those which are brought before the committee by private individuals or societies as complainants or informants; and, secondly, those which are brought before the committee by public officers or bodies, such as the medical authorities or coroners.

In the latter class of cases there is no person who can be properly called a complainant and it would be most inexpedient, and indeed impracticable, to require a public body or official before reporting a case of grave professional misconduct by a practitioner to the Council to give notice to, or communicate with, the practitioner.

As regards the former class of cases—namely, those in which professional misconduct by a practitioner is reported to the Council or complained of by a private individual—it would, I fear, cause inconvenience and mischief and even lead to injustice in some cases if a general rule applicable to all cases were passed requiring the complainant before lodging his information and complaint to give to the practitioner notice of his disapproval of, or his complaint against, the practitioner's conduct. Such a general rule would be inconsistent with the judicial position which the Council occupies in relation to professional misconduct and is not required for the protection of the party complained of.

If the rule were passed so that the practitioner complained of knew beforehand the subject matter of complaint, and who the complainant was, he might attempt to arrange and compromise the matter with the complainant before the facts were placed before the Council, or might endeavour to get inconvenient evidence out of the way.

The Council's position is not that of having to decide a dispute between a complainant and respondent, but when facts are brought to its notice of having to decide in the interests of the public and the medical profession whether the misconduct alleged and proved against a practitioner requires the erasure of his name from the Register. The question whether the complainant disapproves or not of the practitioner's conduct is immaterial.

Under the present practice the complaint or information is considered by the Penal Cases Committee and that committee in its discretion decides what steps shall be taken both as regards entertaining the complaint at all and giving notice to the practitioner.

I would suggest, therefore, that no definite instructions to the Penal Cases Committee, applicable to cases generally, should be prepared. I would submit that it may be left to the discretion of the Penal Cases Committee in any case in which in their judgment the complainant should have communicated with the practitioner before lodging the complaint to require this course to be adopted before proceeding further with the case.

Nov. 23rd, 1904. M. MUIR MACKENZIE.

The PRESIDENT said that the motion which raised the point in May was proposed by Sir William Thomson. Did Sir William desire to say anything upon the memorandum?

Sir WILLIAM THOMSON said that his object had simply been to have some rule of conduct determined upon. It was their wish that no hardship should be done to the defenders in these cases. He moved that the Council should accept the memorandum and direct the Executive Committee to proceed no further in the matter.

Dr. MACALISTER seconded the motion which was adopted.

The Case of Mr. Robert Evans.

The Council hereafter dealt with the case of Mr. Robert Evans, registered as of 74, Brooksby's-walk, Homerton, London, N.E., Lic. R. Coll. Phys. Edin., 1885, Mem. R. Coll. Surg. Eng. 1885, who had been summoned to appear before the Council to answer the following charge, as formulated by the Council's solicitor:—

That you have employed as assistant in connexion with your professional practice a person not duly qualified or registered under the Medical Acts—namely, Griffith Ellis Williams—and have knowingly allowed such unqualified person to attend and treat patients in respect of matters requiring professional discretion or skill.

Mr. Evans was present, accompanied by his solicitor, Mr. Marpole. Mr. Wynn Westcott, the coroner who had, as the result of an inquest held by him, brought the matter under the notice of the Council, was not present, but a letter addressed by him to the Registrar was read, as well as certain depositions taken at the inquest. The allegation was that Williams had supplied for a child, aged three months, a medicine containing bismuth. These documents constituted the case against Mr. Evans.

Witnesses were called for Mr. Evans.

Examined by Mr. MARPOLE,

Mr. EVANS stated that he had been practising on his own account for 17 years. Williams had been apprenticed to a medical man in the country and when witness engaged him he informed him that he was not on any consideration to treat patients on his own responsibility. He was, of course, well aware of the consequence of permitting a dispenser to treat patients. Until this case occurred he never had a suspicion that Williams was not obeying the instruction. Williams had been dismissed and it was his intention to have a fully qualified man as a dispenser and assistant.

Questioned by members of the Council, the witness said that Williams was 29 years of age and had been six years in employment in Wales before he engaged him.

Mr. MUIR MACKENZIE: Is it the case that at the inquest the coroner remarked very severely on Williams's conduct and pointed out that he might have been liable to a prosecution under the Apothecaries Act?

The WITNESS: Yes.

Mr. BROWN: Why did you dismiss Williams?

The WITNESS: Because he put bismuth in medicine. I gave him a month's notice.

Dr. JOHN MOORE HALL, Mr. Evans's partner, was also called as a witness. He stated that all that Williams had been authorised to do was to repeat medicines already prescribed, but in this case he added bismuth on his own responsibility.

Mr. MARPOLE read extracts from a newspaper report (which had been confirmed) of the proceedings at the inquest. From these it appeared that the coroner expressed the opinion that no harm had resulted from the incident and that the jury returned a verdict to the effect that the child died a natural death and that nobody was to blame. Mr. Marpole then formally addressed the Council on Mr. Evans's behalf. This, he said, was the only case, so far as Mr. Evans and Dr. Hall knew, in which Williams had ever prescribed. It might be said that this was the only occasion on which he had been found out. To that he (Mr. Marpole) answered that the Medical Act distinctly used the expression "knowingly allows." Mr. Evans knew nothing about the matter. This was most assuredly not a case for the exercise of the Council's power to erase Mr. Evans's name from the Register. In concluding, he read letters from the medical superintendent of the Hackney Union Infirmary, Mr. John Joseph Gordon, from Mr. J. D. Ross and Mr. R. F. Walsh, medical neighbours, and from Professor A. B. Barrow of King's College Hospital, speaking as to their knowledge of Mr. Evans's personal and professional character extending over a period of many years.

The Council having sat *in camerâ*,

The PRESIDENT said: Mr. Evans, the Council has deliberated on your case and I am instructed to inform you that the facts alleged against you have not been proved to the satisfaction of the Council and that your name will therefore remain on the Register.

This concluded the hearing of the penal cases.

False Medical Certificates.

Mr. MUIR MACKENZIE, the legal assessor, in obedience to the desire of the Council, submitted his opinion on the point whether any legal provision exists whereby the issue of false medical certificates for public purposes may be prevented or restrained. The opinion was as follows:—

The effect of Section 37 of the Medical Act, 1858, is in my opinion as follows. It imposes a statutory duty and obligation on any public body which by statute is required in specified cases to be furnished with a certificate by a medical practitioner not to accept a certificate by an unregistered person or such a person as a chemist. The Act imposes no penalty or punishment on a public body which in contravention of the enactment does, in cases in which a certificate of a registered practitioner is thus prescribed by the statute, accept the certificate which the Acts say it shall not accept, nor does it make a contravention of the enactment a misdemeanour. Consequently neither the General Medical Council nor any individual could by summary proceedings before a magistrate, or by indictment, or by an action, bring such a public body before a court of justice with a view to secure the observance by that body of its statutory duty and obligation and prevent the enactment from being contravened or evaded.

In the same way neither the General Medical Council nor any individual could by summary proceedings, action, or indictment, bring an unregistered person who gave certificates which come within the enactment before a court of justice, so as to prevent the further contravention of the enactment by him. If, however, a public body whose duty it was under the combined effect of the statutes to accept only the certificates of registered practitioners were systematically, and to such an extent as to create a public mischief and injury, to ignore and violate the enactment by accepting certificates of chemists and unregistered persons, my opinion is that the Attorney-General would have power to take proceedings by action against the public body to compel it to observe the provisions of the Act of Parliament and prevent them from being contravened. Such an action would, if a sufficient case were made out, be taken in the name of the Attorney-General on the relation (as it is called) of some public body or individual who would have the practical conduct of the proceedings. It is possible, also, but not, I think, probable, that a case might arise in which compliance with the statute might be enforced by a *mandamus*.

I ought to point out, however, that I do not think that any precedent for the institution of such an action by the Attorney-General exists, excepting the proceedings which were successfully taken on the relation of the Council against the General Council of Safe Medicine. There was also a case in which some proceedings to prevent a violation of Section 36 were contemplated and proposed; but I think that actual proceedings turned out to be unnecessary and were not commenced. If a public body which is not required by statute to have a certificate signed by a medical practitioner chooses under its own regulations to accept certificates of chemists, unregistered persons and others, there is not, in my opinion, any existing power to prevent such a body from so doing, and no legal proceedings could be successfully instituted against such a public body nor against the giver of the certificate, provided that the latter did not in the certificate contravene the provisions of Section 40 of the Act, by which a false assumption of medical titles is prohibited.

Sir VICTOR HORSLEY moved that the extremely fair memorandum which they had heard read be entered on the minutes. He expressed the thanks of many medical practitioners for the lucid statement of the conditions of law by which the question was ruled at the present time.

The motion was seconded by Dr. MACALISTER and agreed to.

On the motion of Sir VICTOR HORSLEY, seconded by Dr. MACALISTER, it was resolved that a copy of Mr. Muir Mackenzie's memorandum should be sent to the British Medical Association.

The Five Years' Curriculum.

Discussion was resumed on Dr. Lindsay Steven's motion relating to the five years' curriculum.

Dr. MCCALL ANDERSON, who had formally seconded the motion the previous evening, said the main source of the evil complained of was the overloading of the medical curriculum. If a student wanted to get an M.A. degree he required to show a fair knowledge of five or six subjects, but if a medical student wanted to get a mere qualification to practise (he did not at present speak of the university degree) he required to show a fair knowledge of 15 or 16 different subjects. Everyone connected with a great medical school knew that there were numberless students who succumbed under the tremendous strain put upon them. This had a very direct bearing on the fifth year of study. It was true there were some able and industrious students who were able to pass their earlier professional examinations at the expected time but a very large proportion of them were unable to do so. The consequence was that the three great subjects of medicine, surgery, and midwifery, including clinical study, were apt to be put on one side or crushed out, which was to the detriment of the best interests of medical education. The General Medical Council had recommended that the fifth year should be devoted exclusively to medical study and he could say from his own experience that this was a recommendation which was much more honoured in the breach than in the observance. There were two ways of overcoming the difficulty. One was that suggested by Dr. Lindsay Steven, that the earlier and less strictly professional subjects should be taken before the commencement of the five years' medical study. But he would also propose that the Education Committee should consider the advisability of lightening the curriculum.

At this stage it was agreed, on the suggestion of Dr. MACALISTER, that the motion should be altered so as to make the remit to the Education Committee instead of to both the Examination and Education Committees.

The PRESIDENT said that Dr. McCall Anderson spoke of the Council's present resolution being to the effect that the last year should be "exclusively devoted" to medical study. The words were that the fifth year should be "devoted." "Exclusively" was not mentioned. Dr. Steven's proposed motion introduced that word and that was the difference between the existing resolution and the motion proposed by Dr. Steven.

Dr. NORMAN MOORE wished to support the motion, the first clause of which followed the regulations of the Royal Colleges. That particular point in their regulations was not arrived at without very great deliberation and consultation with teachers of anatomy and physiology in London. There were, of course, many objections to such a regulation but all those objections seemed to be overcome by the fact that the physiologists, and to a less degree the anatomists, said it was impossible to teach their subjects unless men gave to them their undivided attention. A motion like the first one of course had a tendency to prolong the medical curriculum but the length of the curriculum would always be determined by two things. One was the recommendations of the Council and the requirements of the licensing bodies and the second was the time required to acquire the information which the student was bound to have. If the motion were adopted it would lead to what was already the case with a large proportion of students in London—namely, that a longer time than five years would be devoted to the medical curriculum. As to the second clause, he was not quite sure that the words would produce the effect which Dr. Steven hoped for, but that effect they must all wish to produce in some way or other. The great defect of the new regulations of the five years' curriculum as at present arranged was that the student tended to give too much time to the earlier part of his work and not to have enough time to be devoted to the part of his work which was the object of the whole. He thought it was of the highest importance that both the clauses should be thoroughly discussed by the Education Committee.

Dr. FINLAY said he rather disagreed with Dr. Norman Moore as to the first clause. As to the second he was in

entire agreement. He urged that the greater attention they could get to practical subjects the better.

Dr. MACKAY said he had the greatest sympathy with Dr. Steven's proposal, but considering the position in which the Council was placed it was almost an impracticable one. The first proposal was that the preliminary examination in physics, biology, and chemistry should be passed before the student commenced his second year's study. Those engaged in teaching knew that the student often failed to pass in his preliminary subjects the first year. If this motion were passed it would mean that he would have to devote the second year to these subjects. If the second motion were passed he feared that intermediate subjects—anatomy, physiology, pathology, and other important matters—would have the time allotted to them pared at both ends and would be treated very badly. He thought that what Dr. Steven meant and what was in the minds of the Council was that the four years' curriculum should be insisted upon by the Council after the first year's preliminary subjects had been disposed of. Only in that way could the motion have any good effect. He thought also that the same provision would be required with regard to the second proposal. It would not be fair to devote the last year exclusively to clinical work unless they had four years after the first scientific subjects had been disposed of. Therefore he would suggest that this proposal pointed perhaps to a lengthening of the curriculum. If the Council were to propose an alteration in the regulations affecting the curriculum it ought to have some power to carry out that alteration. The licensing bodies might refuse, and he was sure that many of them would refuse to give effect to alterations of this kind. The Council would not be able to take any action unless they were in a position to say that the length of the curriculum should be of a certain duration. If the Council had the right to say that it must extend over five or four years after the preliminary examination the Council would be able to carry such a resolution into effect; but until the Council had the right to establish a register and to lay down conditions affecting the regulations as to the duration of the course they were only expressing pious opinions which could have no effect on future medical education. He therefore suggested that before taking up the important work which lay before them in moulding and improving the course of medicine they should set themselves to remove that barrier which blocked their way. It was of very little value to discuss those questions until they were in a position to give effect to the resolutions that might be arrived at. At the same time the Education Committee would be none the worse for thinking over matters. He did not look for any practical effect.

Dr. WINDLE submitted that the terms of the reference would not permit the Education Committee to consider the point raised by Dr. McCall Anderson as to whether any subject should be excluded from the medical curriculum. He regretted that, because they were all of opinion that there was too much in the medical curriculum. In the great majority of cases he was aware that the present curriculum was a six years' one. The average period of study was six years and one month. The minimum curriculum at present was five years and a certain number of diligent and capable students did manage to obtain their qualifications in that time. He would vote for the motion because the Education Committee could do no harm in considering the matter but the Council ought to be aware of the possibilities in the case before passing this motion. If they did pass it they would be establishing a six years' curriculum. That might be a very good thing but they ought not by a side wind to conceal that result.

Mr. TOMES asked whether it would be made clear on the minutes that the Council in adopting the motion would not be committed to the two proposals but would only be referring the subject to the Education Committee.

The PRESIDENT said that he looked upon the motion simply as asking the committee to consider and to report how far such proposals were practicable.

Dr. LINDSAY STEVEN, in his reply, said it was perfectly clear that there was nothing behind this motion. It was a simple remit for consideration and report, and the idea of pledging the Council to one thing or another was certainly not in his mind. He would like to say that he quite recognised what Dr. Windle had said as to the tendency being towards a six years' curriculum but he was by no means certain that they were ready to bring forward a motion at the Council for extending officially the curriculum. It was clearly his opinion that the average and diligent student by careful management of his forces could get through the whole curriculum within five years and even with a possibility of devoting the fifth year exclusively to practical and clinical work. If the result of his motion should be the lengthening of the curriculum he would rather have it lengthened at the beginning or the end.

The motion was agreed to.

The Fifth Year's Work.

Mr. BROWN moved:—

That the resolution of May 30th, 1890, on p. 87 of the Minutes for that year, be altered so that it reads as follows: That the fifth year shall be devoted to clinical work at one or more public hospitals or dispensaries recognised by any of the medical authorities mentioned in Schedule A of the Medical Act, 1858, provided that in the case of students who have served one year's pupilage with a recognised practitioner holding a public appointment or possessing such opportunities of imparting practical knowledge as shall be satisfactory to the medical authorities only six months' clinical work at a public hospital shall be exacted.

He said that after a lapse of some 13 or 14 years they found that there had not been a single instance before the Council where a student had spent six months of the last year of medical study with a medical practitioner. The resolutions had been a dead letter and he did not wish that this should be so any longer. The reason why no one had ever taken advantage of the concession of a quasi pupilage was that it was absolutely unworkable. No student in the fifth year who had had the run of the hospital and who was nearing the period of his final examination could be expected to leave his work and go down into the country or the East-end of London to be away from the hospitals and buried in a dim surgery dispensing medicines all day long.

Mr. JACKSON, in seconding the motion, said there was no doubt a great deal to be said against it, but one point was important. If anyone entering the medical profession were with a suitable medical practitioner he acquired that rather difficult art—the art of treating the patient instead of always treating the disease. That was very essential and a great deal of the success of quacks lay in this matter. He seconded the motion in order to discover the opinions of members of the Council.

Sir VICTOR HORSLEY hoped that the mover and seconder of this motion would withdraw it. Aspects of this subject had just been presented to the Council which in a very considerable degree reflected upon the practitioners of this country. As he understood Mr. Brown's speech, complaints were rife and had even been heard in Parliament to the effect that the general practitioners of this country were not educated in prescribing and made disastrous mistakes. He read the Parliamentary debates very closely and he was not aware of having seen at any time that this question had been raised in Parliament. More than that, he was not aware that the subject had been raised within their own profession, or that representations had been made, except to a moderate extent, asking the Council to compel the reintroduction of the pupilage system. He firmly believed that the general practitioner was not with Mr. Brown in this matter.

Mr. TOMES asked if Mr. Brown and Mr. Jackson meant that the pupilage should be at the end of four years' medical study.

The PRESIDENT said that point was not clear in the motion.

Mr. BROWN remarked that he left that open in his motion.

The PRESIDENT said that in Scotland there had been no pupilage system as necessary to qualification. Of course, there was such a thing as a voluntary pupilage as well as a compulsory one. There had been a compulsory pupilage for the Apothecaries' Society in London. He was himself five years an apprentice.

Dr. MCVAIL did not see what benefit a student was to get in his fifth year under Mr. Brown's motion.

Sir JOHN MOORE pointed out that the present five years of a medical student's curriculum were fully occupied. He knew a great deal about medical students and they told him that they had not now a moment to spare of those five years. If they allowed those young gentlemen to go down to the country, as would happen under this motion, he thought the result would be disastrous to their medical education and to their practice afterwards. He was astonished that it had been said that these young men under the care of a practitioner would learn how to treat the patient as well as the disease. That was what a medical student ought to learn in

the clinical hospitals. This would be a very retrograde step which Mr. Brown proposed.

Sir HUGH BEEVOR thought that the motion would be misleading to medical students.

Sir WILLIAM THOMSON said that he gathered from Mr. Brown that this year of pupilage might be taken at any period of the course.

Mr. BROWN: Yes.

Sir WILLIAM THOMSON continued that if a student took this period when he began his first year and became associated with a practitioner in the country the student would not know anything at that time which would enable him to benefit from the association. Mr. Jackson talked about him learning the bedside manner. The student might know a medicine bottle but that was all. There was another point which occurred to him in connexion with this proposal. It would extend the curriculum. The young man would not be attending lectures in his first year. His legitimate course was five years and he must then put in a part of the sixth year in the hospitals.

Dr. MACALISTER believed that instead of prolonging the curriculum Mr. Brown's motion would lead to shortening it. In the neighbourhood of medical schools there would be practitioners who would be prepared to take pupils. While the latter were undergoing their nominal pupilage they would be taking at the same time their physics, biology, and chemistry. In that way they would get off with six months at the end of their course. The fact was that pupilage was as dead as a doornail.

Dr. MCCALL ANDERSON pointed out that Mr. Brown's proposal could not be satisfactorily carried out at the University of Glasgow.

Mr. BROWN, in reply to the debate, said that he was quite sure that there was a feeling in the medical profession that there was a decided want of practical education, especially with regard to materia medica. That want could be met by something in the nature of a pupilage. He was sure that the President found that his early pupilage was of great use to him when he went into practice.

The PRESIDENT: I never practised.

Mr. BROWN said that, nevertheless, the President must have found the experience he gained most useful. He regretted the opposition which had been offered to his motion.

On a show of hands the PRESIDENT declared that the motion was lost.

Mr. BROWN asked that names and numbers should be taken. The result was that three members voted for the motion and 24 against.

The Final Examinations at the Universities of Oxford and London.

Dr. FINLAY formally asked the President if he could inform the Council what progress had been made regarding the second inspection and visitation of the final examinations of the Universities of Oxford and London ordered by the Council on June 16th, 1903.

The PRESIDENT said, in reply, that the examination of the University of London was inspected and visited by the Council's inspector and Sir John Batty Tuke early in this month. There was not time yet to receive the report but there was no doubt that it would be before the Council in May. In the University of Oxford the examination did not take place until December but an arrangement had been made that the inspector, along with Dr. McCall Anderson, would attend at the examination about Dec. 7th. They would report on it. He should mention to the Council that the ground for the delay was that both London and Oxford had been changing their examinations in various respects. It was felt that the Council should not inspect the old system but the one which was being put into operation. He hoped that answer would be satisfactory.

Dr. FINLAY: Certainly, it is satisfactory.

Report of the Public Health Committee.

On the motion of Dr. BRUCE the report of the Public Health Committee was received and entered on the minutes.

Dr. BRUCE then moved the adoption by the Council of the following recommendation of the report:—

> The committee had before them a communication from the University of Liverpool and a similar communication from the University of Leeds, regarding their regulations for the Diploma of Public Health, for which these bodies ask the approval of the Council.
>
> The committee having duly considered those regulations, and finding that they are drawn on similar lines to those of the Victoria University, recommend the Council to approve of the same.

Mr. JACKSON seconded and the motion was agreed to.

Dr. BRUCE then moved that the following paragraph of the committee's report should also be adopted:—

> The committee have also had remitted to them by the President a letter from the former health officer for Madras City, asking to be excused from going through six months' practical work as qualifying for the Diploma of Public Health on the ground of his having held the office referred to for four years to a population of over 500,000 inhabitants.
>
> The committee do not see their way to sanction the suggestion that the Council should make, in favour of individual candidates, exceptions to the rules which it has itself laid down and which have been adopted by all the qualifying bodies. They would point out that the requirement in question applies equally to medical officers of health in this country who themselves hold similar appointments and may be giving their whole time to public health work. These officers must notwithstanding submit to the rules of the Medical Council by devoting a certain portion of their time to further study of practical work under suitable direction. They therefore advise the Council to refuse the application.

He said that there was no doubt about the high literary training and qualifications of Captain J. W. Cornwall of the Indian Medical Service, who was applying in this case for permission to enter for the D.P.H. examination held by the Conjoint Board of London. He had been for four years health officer of Madras city with a population of 506,000. He was for three years professor of hygiene and practical bacteriology at Madras Medical College and his present appointment was inspector of vaccination and deputy sanitary commissioner of the Madras Presidency. In spite of that the committee thought it was not advisable to give their sanction to any departure from the rules. The regulation as to practical work was that every candidate for the examination must produce evidence that he had been engaged diligently in acquiring a practical knowledge of public health administration under the supervision of a medical officer of health in England and Wales, Scotland, or Ireland. The applicant did not come under the required category.

Mr. JACKSON seconded the motion.

Dr. MACALISTER thought that there was an old regulation of the Council which had never been rescinded in a formal manner but which had not been included in the latest set of regulations sent out to the licensing bodies and under which this applicant could now sit for his D.P.H. examination.

Dr. LINDSAY STEVEN said that there was very great difference of opinion in the Public Health Committee about this case. It was only by four votes to three that the decision of the committee not to grant the request was arrived at. This was so strong a case that it might be regarded as quite an exceptional one. Here was a gentleman who did not seek exemption from any subject of examination. He asked to be relieved from one part of the curriculum—namely, six months' practical instruction with a medical officer of health in England. The Council should notice how he made the request. He placed his application on the ground that he was an officer in the Indian Medical Service and it was exceedingly inconvenient for him to spend six months under a medical officer of health in this country. Further, it must be remembered that he seemed to be in every way quite qualified so far as past experience and past curriculum were concerned to go in for this examination. This was a case which might have been exempted.

Dr. NORMAN MOORE said that the Conjoint Board had no power to grant exemption in this case and therefore they referred the applicant to the Council. Surely there must be some means of doing justice in a case of this kind. This gentleman had taken the course of obtaining knowledge of the kind the Council had required. It was a real hardship that he should not be able to be admitted to exemption.

Sir CHARLES BALL agreed entirely with Dr. Lindsay Steven. It seemed a ridiculous thing to ask a gentleman of the qualification of this one to submit himself to a six months' course of instruction which they knew in many cases was taken in a slip-shod way.

Dr. MACALISTER repeated that he thought the rule in force in 1896 covered such cases as this.

Dr. BRUCE: Under conditions do you think it applies to India?

Dr. MACALISTER said that he did think so.

Sir CHARLES BALL observed that the rule had never been rescinded.

Dr. MCVAIL said that he would be sorry if, with a view of meeting the wants of a single individual, the whole of the rules should be passed over. These rules had taken the Council and its committee a long time to frame. He did not see why they should relax them on this occasion for an applicant who was possibly a friend of some of the members.

Dr. LINDSAY STEVEN, rising to a point of order, said that he refused to allow it to be said that he was a friend of this gentleman or that he knew any more of him than what was set before the committee.

Dr. MCVAIL replied that if any word he used conveyed the idea that any undue influence was being used then he must have expressed himself very badly. He admitted that there was a great deal to be said for this gentleman. He had been a professor of public health. He thought that they might refer this back to the Public Health Committee to see if there should not be any change of the rules.

Dr. NORMAN MOORE said that he would like to move that it be referred to the Public Health Committee to inform the Council whether this application could be granted under the rule which Dr. MacAlister said was still in force.

Dr. BRUCE contended that this regulation was not now in force. The Council had sent down regulations to the licensing bodies and this one was not now amongst them. Many men had had to undergo the hardship which was borne by the gentleman who was now applying for exemption. The Council had drawn up deliberate regulations.

The PRESIDENT said that a question of order arose in connexion with the discussion—namely, that a certain rule adopted at a certain date had never been specifically repealed. It was a very wide proposition to hold that because the rule had not been specifically repealed that therefore it was in force. Since it had been issued in a series of rules there had been issued a new set of rules and that new set of rules having been adopted by the Council were now the rules of the Council. He thought the rule in question was rescinded by the new set of rules.

Dr. MACALISTER remarked that the rule had dropped out of the Council's regulations and had not been removed by its deliberate act.

The PRESIDENT said that it appeared to him that to prevent this gentleman from presenting himself at the examination considering what his qualifications were and the important offices which he had held would be carrying red tapeism to a degree of strangulation. He could not conceive any man appearing before any examining board in the United Kingdom with such a string of qualifications as this one possessed.

Dr. LINDSAY STEVEN moved as an amendment that the request of this gentleman should be granted.

Dr. LITTLE seconded.

Sir JOHN BATTY TUKE remarked that it would be extremely dangerous to allow individual applications to have an influence over the Council. He moved the adjournment of the debate.

Dr. MCVAIL seconded.

It was agreed to adjourn the debate until Monday, or if the business on that day did not permit of its being taken, until Tuesday.

The Council then adjourned for the day.

SATURDAY, NOV. 26TH.

The session was continued to-day.

Examination Committee.

Dr. Caton was elected a member of the Examination Committee representing the English Branch Council in the place of Dr. Payne who is not now a member of the Council.

Inspection of Edinburgh Final Examination.

Sir PATRICK HERON WATSON moved that the report of the inspection of the final examination in the University of Edinburgh be received and entered upon the minutes.

Dr. MCVAIL seconded.

Sir JOHN BATTY TUKE moved as an amendment that the report be received and entered on the minutes with the exception of the remarks on pp. 23, 24, 25, and 26. He did not intend to consider in the slightest degree whether this was a good or a bad examination. He confined himself to the general principle that when an inspector and visitor were appointed to visit a particular examination their duty was to report on that examination, emphasising, of course, the good or the bad points of that examination. They did not desire to have any special remarks from the visitor and the inspector on the general principles of medical education and examination. In this report they found in the first place that these remarks to which he took exception applied to the examination of the University of Edinburgh as a university. The University of Edinburgh and all other universities were to the General Medical Council merely licensing bodies and nothing more. The remarks in this case he held to be utterly out of place—entirely irrelevant; they went into the general question of medical education, more especially in relation to clinical instruction. The remarks were also sandwiched with direct condemnatory criticism of the particular body inspected and must necessarily convey to the public the impression that they were specially applicable to that body. But by some procedure which he could not understand these same remarks were appended to the reports of the examinations of all the other Scotch universities, the reports of which were generally entirely satisfactory. He wished to lay stress on the fact that it was to the reports of the Scotch universities only that these remarks were appended and the general implication was carried that there was something specially and particularly wrong with the Scotch universities. The inspector and visitor had entirely exceeded their commission. He might add that in moving this amendment he was acting entirely on his own responsibility.

Dr. MACKAY seconded.

Mr. BROWN, on a point of order, asked if there was any precedent for excising a portion from the report of an inspector and visitor. There was a precedent for excising portions of the report of the Examination Committee upon the report of the inspector and visitor, but there was not, so far as he was aware, a precedent for what was now proposed.

Sir JOHN BATTY TUKE said there were two precedents. One was in connexion with the University of Glasgow in 1894. The other was the withdrawal of some remarks made by the inspector, Mr. B. Carter, in connexion with the London Conjoint bodies.

Mr. BROWN submitted that these were not precedents, inasmuch as the excisions were made at the request of the drafters of the reports.

The PRESIDENT: I always recollect the advice which Mr. Muir Mackenzie gave to me when I entered on my duty as President—namely, that the regulation of the business of the Council lies in its own hands. It is for the Council to say whether it approves or disapproves of this motion by Sir John Batty Tuke and if the Council chooses to say that it does approve the mattter is settled.

Dr. MCVAIL said he desired to draw attention to a clause of the Medical Act of 1886 which he thought entirely disposed of this question. The clause read as follows:—

> Inspectors of examinations appointed under this section shall not interfere with the conduct of any examination, but it shall be their duty to report to the General Council their opinion as to the sufficiency or insufficiency of every examination which they attend and any other matters in relation to such examination which the General Council may require them to report and the General Council shall forward a copy of every such report to the body or to each of the bodies which held the examination in respect of which the said report was made and shall also forward a copy of such report, together with any observations thereon made by the said body or bodies to the Privy Council.

That made it clear that the report must go unaltered to the Privy Council whether the General Medical Council agreed with it or not. Were they to have a different report on their minutes to that which went to the Privy Council? Sir John Batty Tuke's proposal was entirely incompetent.

After further discussion

The PRESIDENT pointed out that the inspector and visitor (Sir George Philipson and Mr. Thomas Bryant) received no special instructions beyond what it was the habit to give to an inspector and visitor.

Sir W. THOMSON asked when the document under discussion became a report. Was it a report when it was received or only after it was put on the minutes?

The PRESIDENT: It only becomes a public document when it is put on the minutes.

Sir W. THOMSON said that if Dr. McVail was right the original document must go unmutilated to the Privy Council.

Dr. MACALISTER pointed out that if the inspector and visitor before the report was formally received by the General Medical Council desired to make any alterations they were at liberty to do so with the permission of the Council.

Dr. NORMAN MOORE said they were bound to treat with the utmost respect all reports sent in by the persons whom they had appointed. It was of the greatest importance that their visitors and inspectors should feel that controversy was not likely to be raised. But it seemed clear to him that a large part of the pages objected to did not fall within the functions of the inspector and visitor—that, indeed, the report had been made under a misapprehension—and he suggested that

the visitor and inspector should be asked whether they would revise the report so as to bring it within the terms of their commission.

Sir GEORGE PHILIPSON said that he and Mr. Bryant had had no intention to exceed their commission. They had felt it to be their duty after inspecting this examination with the greatest care to direct attention to certain points which they thought might be improved and their purpose had been to aid the Examination Committee.

Dr. NORMAN MOORE said he would move as an amendment that the inspector and visitor be asked to revise their report in order to bring it within the terms of the reference.

Dr. FINLAY seconded.

Mr. TOMES asked whether it was consistent with the dignity of a great University like Edinburgh on a point of order or anything like a point of order to withhold that which was felt to be an adverse criticism. It was much more desirable that the criticism should be published and answered.

Dr. PYE-SMITH said that the General Medical Council had no discretion in the matter. A report once sent in should not be tampered with. If Sir George Philipson thought it right to modify the report that would be a way out of the difficulty but Sir George Philipson, acting within his right, had declined to make any change, and he should strongly deprecate any attempt to go beyond that.

Dr. LITTLE observed that if they struck out the "remarks" they must also strike out the reply of the University of Edinburgh.

Mr. BROWN maintained that Sir John Batty Tuke's amendment was not in order.

The PRESIDENT: I have ruled it to be in order, Mr. Brown, and you must accept my ruling. Continuing, he said that the Council could not have two amendments before it at one time. The only way that Dr. Norman Moore's amendment could be brought before the Council was by substituting it for Sir John Batty Tuke's.

Dr. MACKAY, as seconder of Sir John Batty Tuke's amendment, expressed himself as willing that it should be withdrawn.

The PRESIDENT: Does the Council then allow Sir John Batty Tuke to withdraw his amendment?

Dr. MCVAIL objected to that course altogether if Dr. Norman Moore's amendment was to be substituted for Sir John Batty Tuke's. Sir John Batty Tuke's amendment was that certain passages not of the Examination Committee's report but certain passages of the documents sent to the Council by the visitor and inspector should be deleted. These passages were not to go on the minutes. What he wanted to question was this. Did that involve also that the Council would not transmit the whole document to the Privy Council?

Dr. MACALISTER: Yes, it does.

The PRESIDENT: You have raised a new point which I have never considered.

Dr. MCVAIL said that the Council could refuse to put this document on its own minutes but it must transmit the whole report to the Privy Council. Parliament gave the Medical Council the right to nominate the inspectors. It did not give it any power to intervene between the inspectors' reports and the Privy Council. The Medical Council was not entitled to ask Sir George Philipson or any other visitor to modify the reports. It had no right to tamper with the reports. It was true that it could send a second report by appointing a new inspector. He wanted the Council to give a direct negative to the amendment if Sir John Batty Tuke would not withdraw it entirely.

Sir JOHN MOORE, as one of the members of the Council who had visited examinations, maintained that visitors had the liberty to make such observations as they thought fit.

Dr. MACALISTER thought that Dr. McVail was perfectly right. If the visitor declined to withdraw his remarks then the Council had no choice but to accept the report as it stood. He did not know whether Sir George Philipson said that he was unwilling to withdraw his remarks.

Sir GEORGE PHILIPSON: Yes, that was quite clear.

Dr. MACALISTER: Then the document must remain as it stands.

Dr. PYE-SMITH moved that the Council do now proceed to vote on the amendment.

This was declared carried on a show of hands.

The Council then voted on Sir John Batty Tuke's amendment which on a show of hands the PRESIDENT declared lost. Names and numbers were demanded. 22 members voted against the amendment and four for it. Four did not vote and three were absent. The amendment was therefore declared lost.

The motion that the report be received and entered in the minutes was agreed to.

The PRESIDENT said that he had only received the report that morning. He had not had time to consider the document and he would feel at a disadvantage if the discussion was now proceeded with. As one of the members from Edinburgh he would have something to say on the matter. He had no doubt that there were other members of the Council in the same position as he was. He thought that further debate should be postponed until Monday.

Sir PATRICK HERON WATSON said that he would formally move the adoption of the report now.

Dr. MCVAIL said that he would second that motion.

On the motion of Dr. NORMAN MOORE further debate on the subject was adjourned till Monday.

Report by the Education Committee.

Dr. WINDLE moved that the report by the Education Committee be received and entered upon the minutes.

Dr. NORMAN MOORE seconded the motion which was agreed to.

Dr. WINDLE then submitted to the Council a document containing certain suggestions which had been submitted to the Board of Education by a Consultative Committee for a system of school certificates. These suggestions were put forward by the committee as the result of careful and prolonged consideration with representatives of the English universities, of associations of teachers, and of professional bodies concerned with the question and after consulting with persons specially conversant with the administration of similar examinations. The Board of Education, the document stated, was not committed at this stage to any action in the matter. The object which the Consultative Committee had in view was to obviate the grave inconvenience and waste of time caused by the multiplicity of examinations for entrance into professions. Many professional bodies held examinations of this kind which although substantially identical in standard were altogether diverse in the details of their requirements. The effects of this were very serious not only to schools by rendering it impossible for boys working for different examinations to be taught together, but also to the education of boys preparing for examinations by depriving them of regular class instruction during their preparation. After conferences with representatives of the universities and of various teaching and professional bodies, including the General Medical Council, the Consultative Committee drew up a scheme containing proposals for a system of school certificates for England. This scheme was set forth in detail in the document which Dr. Windle laid before the General Medical Council. The Consultative Committee expressed the opinion that "with the object of diminishing the multiplicity of examinations affecting secondary schools and of providing a test of adequate general education which may be widely accepted a general system of school certificates is desirable." The committee avoided the term "leaving certificate" because it thought that it was to some extent misleading. It further came to the conclusion that it was not desirable that examinations for such certificates should be conducted by means of papers set for the whole country from a single central organisation. With regard to the organisation of the examinations the committee suggested that they should be controlled by a recognised examining body which should either be (1) a university, or (2) a combination of universities, or (3) an examination board representative of a university or universities and of the local authorities who were prepared to coöperate with them. It was desirable that teachers should be represented on the examining body. The Consultative Committee considered that no general rule could be laid down requiring a school to be examined by a particular examining body. It might often be desirable that a school should be examined by the university or board of the district in which it was situated but it should have the option to preserve or to create a connexion with one of the Universities of Oxford, Cambridge, or London. It was further recommended by the committee that a central board should be established for England consisting of representatives from the Board of Education and from the different examining bodies whose duty should be to co-ordinate and control the standards of these examinations

and to secure the interchangeability of certificates. The Consultative Committee considered that although by this arrangement absolute identity of standard between examinations conducted by different bodies and in different places might be an impossible idea, yet practical equivalence might probably be secured. The proposals of the Consultative Committee included the periodical inspection of schools which presented candidates for school certificates and an arrangement by which the examination in each school would be conducted by external and internal examiners representing respectively the examining body and the school staff. Dr. Windle, in explaining these proposals of the Consultative Committee, said that the Education Committee of the Council had considered them and had various recommendations to make on them. These he would ask the Council to adopt and to forward to the Board of Education. Proceeding, he said that of course the object of the scheme was to diminish the multiplicity of examinations affecting secondary education. The teaching of the highest class in schools was at present absolutely devastated by the multiplicity of examinations for which the boys were sitting. Sometimes there were candidates for half a dozen examinations in the same class and thus the school was made into a coaching institution instead of being a school for general education. Members would see that the examination would not be conducted by identical papers for the whole country sent out by a central authority. It was not thought desirable to raise up a second Civil Service Commission by which the same papers should be sent out to schools. The central board, however, would have the duty of setting up the minimum standard of the examinations. He hoped that the Council had grasped the principles of the proposals of the Consultative Committee. Well, how were these proposals going to diminish the number of examinations? That was a very pertinent question. The first effect of this examination, it might be said, would be to establish another examination, but it was hoped that this one would finally devour the others and in this way lead to a diminution. So far as the Universities of Oxford and Cambridge were concerned the effect would be a change in name. The local examinations would really become the examinations of this scheme. It was perfectly clear, too, that some of the other examinations must continue, because there were a large number which would be strong enough or sufficiently well organised to enter into this scheme. There would be also a number of students who studied privately and would require a preliminary examination. These candidates must be provided for otherwise. However, in the interests of education and in the interests of schools which were devastated by the numerous existing examinations, he believed that it would be a gain if under the scheme boys in one class could in future be prepared for one examination. The recommendations of the Education Committee on the proposals were very general in manner. The Education Committee did not consider that it was its business or the business of the Council to consider this scheme very much in detail. That was a matter very much more for the universities and the bodies directly affected. The Education Committee considered that its part was to recommend the Council as to whether this scheme on general lines would be advantageous to education, and particularly to medical education. He would move the adoption of the motions *seriatim* which the Education Committee recommended the Council to adopt and to forward to the Board of Education. The first of these motions which he would propose was as follows:—

That any plan which would tend to a diminution in the number of examinations in preliminary subjects of education and to a unification of standard of those which remain would meet with the hearty approval of the Council.

Sir CHRISTOPHER NIXON seconded the motion.

Sir VICTOR HORSLEY said that when he read the report of the Education Committee he did so in full sympathy with the movement for the unification of secondary education, but he was disappointed in this way. The General Medical Council was the first educational body to move in this great matter and it set the ball rolling, but the ball had not rolled quite so far as the Education Committee seemed to think. The proposals of the Consultative Committee had not been adopted by the Board of Education and therefore in their discussion they ought not to do anything of a final nature. He did not think that as this subject was in a tentative stage they ought to send any answer to the Board of Education which would represent them as gladly welcoming any plan. He would therefore move the following amendment:—

While recognising the practical difficulties of unifying the methods of testing secondary education, the General Medical Council expresses the hope that the Board of Education may, in considering any system of school certificates, find it possible to establish a central board for the purpose of creating and supervising a single examination of such a standard that it might, in the opinion of the General Medical Council, be recognised as qualifying for an entrance to a course of professional study.

He did not think that in the scheme of the Consultative Committee, which permitted coöperation of local authorities with universities, there would be a safeguard for a standard of university education. He thought that the Council ought to ask the Board of Education to consider once more whether it could not introduce into England a system which worked so well in Scotland.

The PRESIDENT: It is a State examination there.

Sir VICTOR HORSLEY said that that was what he would like to see introduced into England. He recognised the grounds of the superiority of Scotch education and would like to see it transferred to England. The Council should not consider it impossible that the Scotch system could be introduced in England.

Mr. JACKSON seconded the amendment.

Dr. NORMAN MOORE said that he would like to ask Sir Victor Horsley whether he had carefully considered the conditions of education in England at the present day and how entirely different it was in many particulars from education in Scotland. Had he considered the enormous difference in the size of schools and so forth? Had he also considered the enormous resistance to such a plan as the absolute determining by Government, without reference to all those powerful bodies, of a subject like this? The Council must welcome anything which would prevent the difficulties that now beset schoolmasters in trying to send up boys for examinations of all possible kinds. Any plan that would do away with the difficulty would enable schoolmasters to teach better and to increase the number of boys learning better. He thought that the Council was in favour of a plan of diminishing the number of those examinations.

Dr. MACKAY said that this was a general proposal with which they were all in agreement. The question in dispute was whether a single examination could be applied to the whole of England or whether that ideal was quite realisable at the present moment. Many thought that the ideal was not realisable and they felt that it would not be their duty to turn to this body which had done so much to advance the problem of education and say they were dissatisfied with the work they had done. They wished to encourage them as much as possible and in the course of time it would become more and more possible to realise this single examination.

The PRESIDENT remarked that the expression "any plan" was, in his opinion, too indefinite.

Dr. WINDLE said that Sir Victor Horsley had read into the third proposal something which it did not contain. He had stated that the examination board would contain a majority of persons not connected with the university. There was no statement of the kind in it at all. At the end it was pointed out that every such board should contain a large academic element. With regard to the Scotch system it had done admirable work in Scotland but it was one which no one who was acquainted with the educational affairs in England could for a moment suppose possible of application to the schools of England. The secondary schools in Scotland were extremely well organised. The secondary schools in Wales were, with the exception of two, all very much of the same kind and nearly all of them were erected and controlled by the Welsh Intermediate Education Board. They had their own plan which he believed worked extremely well. But in England the state of things relating to secondary schools was in that of absolute chaos, and to apply a school examination of this kind would be absolutely futile because it would not be able to work. It would be adding another examination which would not eat up other examinations which already existed. There was no reason why a State examination should be accepted rather than the leaving examination, or the Cambridge Local, or the Oxford and Cambridge Local. Such an examination would meet with the deadliest opposition from the universities. There would be an opposition to it which would not exist in regard to the scheme. Most schools would prefer to have the prestige of having their examinations conducted by the universities, such as Oxford and Cambridge, or the joint board of those universities. A centralised State examination would allow no kind of elasticity and would not give a chance to a school of developing in a certain direction, of making educational experiments, or of advancing

the science of education within their walls. An examination such as that suggested by the Consultative Committee would do all this, because a different curriculum would be adopted in different schools subject to the university with which they were connected and the examination would be held on that curriculum. The examination would not go into conflict with the existing institutions. The curse of South Kensington had been the fact that it had bound down everything in one iron chain and allowed no kind of departure or experiment from the single code, a state of affairs which was most fatal. The same thing happened in the elementary schools till lately and education suffered very much from it. Those members of the British Medical Association who wanted a single State examination knew nothing whatever about the chaos in the present state of education.

Sir VICTOR HORSLEY said that no doubt the members of the British Medical Association would be flattered by Dr. Windle's criticism, which, he might assure him, was wholly undeserved. The gentlemen to whom Dr. Windle referred were perfectly competent in this matter. The movement in the British Medical Association sprang primarily in Devonshire and it also came from Wales, where this centralised system was undoubtedly successful. If Dr. Windle's statements with regard to centralisation were correct their Scottish education ought to be a failure, but it had been exactly the reverse. Failure hitherto in England had been due to the fact that they had not had a Board of Education acting up to the requirements of the country. It was because they had had no directing and coördinating force at the centre that secondary education in England was in its present condition. A proposal which would tend to establish that directing and coördinating force would elevate secondary education and not depress it, as Dr. Windle suggested. It was lamentable that the Council should welcome "any plan." It ought not to say that it would take anything that was given to it but ought to tell the Board of Education what it wanted.

Sir VICTOR HORSLEY'S amendment was rejected by 18 votes against 4. 8 members abstained from voting and 3 were absent.

It was agreed on the suggestion of Dr. MACALISTER to insert the words "well considered" before the word "plan."

The proposal was then agreed to.

Dr. WINDLE moved the adoption of the second proposal:—

That if an examination such as is contemplated in the scheme were accepted generally by the universities of England the Medical Council would be prepared to recognise it as qualifying for entrance upon medical studies.

Dr. PYE-SMITH, in seconding the motion, said the University he represented was led to consider the subject from the fact that the success of the matriculation examination for many years had introduced extreme difficulty in dealing with vast numbers of candidates. The University of London welcomed the chance of a separation between the true matriculation examination and the examination on leaving school for which it had practically been used. The negotiations which had taken place, though not complete, had gained some valuable results. One was that this examination would not be competitive—that was to say, it would be on subjects which the boys and girls had been studying. Another result was that the whole of the regulation of it would be not dominated but very much influenced by the academic influence of the universities. On all those points they must congratulate themselves and he agreed with the motion which had been brought forward. Though it did seem to many of them who had been longing for simplicity of education and examinations disheartening to be adding another to the roll, he would remind them that when the Julian era was introduced and the old conservatives of Rome sneered at the reformer who had introduced a year of confusion, it was justly answered: "It is not a year of confusion but the last year of confusion." He believed that would be the case in this instance.

It was agreed to alter the terms of the motion to read:—

That if the standard of the examination contemplated in the scheme were such as to be generally accepted for entrance or matriculation by the universities of England the Medical Council would be prepared to recognise it as qualifying for entrance on a course of professional study.

Sir VICTOR HORSLEY said no one would quarrel with that. It was absolutely different to the motion on the paper. His objection had been that there was no guarantee in the scheme that they were going to have a complete university control of the standard.

The motion in its altered form was agreed to.

Dr. WINDLE proposed the third motion.

That pending the general adoption of this or any similar scheme the Council would welcome the establishment under the authority of the Board of Education of a central board such as that outlined in Clause 6 of the scheme for the purposes of classifying examinations according to standard and arranging for the mutual recognition of certificates; and further that they regard the establishment of such a board as highly desirable from an educational point of view.

He said that if such a scheme as this came into operation it would take a long time and the Education Committee was of opinion that the Board of Education, pending that result, might do something for the question of examinations at once by establishing a central board, consisting of representatives of universities and other educational bodies, which should do for all bodies in this country what the Education Committee had tried to do for the General Medical Council. It would go through the examinations which were held for different professional purposes, examine the requirements, study the papers set and the answers, and tell them whether examination A was of a similar character to examination B. At present they had to do that partly by almost amateur members of the committee and partly through persons whom they paid themselves. The next thing which they asked the central board to do was to try to arrange the mutual recognition of certificates. The Universities of Oxford, Cambridge, and London had arranged for the recognition of certain of their diplomas as qualifying one for the other. That was a very good beginning and he would like to see it extended among all the universities. A board of the kind suggested could be very easily set up by the Board of Education. This third suggestion went beyond the scheme and was a perfectly distinct recommendation which the Council was fully entitled to make to the Board of Education.

Dr. MACALISTER, in seconding the motion, said that he was wholly in accord with Dr. Windle. He regarded this provision as the most important one of all. If a central board were established for this purpose it must be a germinal board leading to much more. If it tried to unify the standard of examinations and had the confidence of all the education authorities a great deal would be gained.

Sir VICTOR HORSLEY suggested that instead of the words "this or any similar scheme" the words "uniform system of educational tests" be inserted.

Dr. WINDLE accepted the alteration.

The PRESIDENT said that it was important to all of them who came from Scotland, and Ireland too, to have information on this point. Was it proposed that this central board should merely take into consideration for the purpose of classification and arrangement the examinations that had been passed in England and Wales, or was it proposed that the examinations passed under the authority of the Scottish Education Department or the Joint Board of Examiners for the Scottish Universities should also be competent to be brought before this central board? It was an extremely important matter. The Joint Board in Scotland had the power to recognise, and did recognise, equivalent examinations passed elsewhere and he wanted to know whether in England it was intended that there should be a machinery for the recognition of equivalent examinations passed elsewhere. As it was granted in Scotland, were they in England prepared to reciprocate?

Dr. WINDLE: Yes, so far as I know of the matter. The desire would be to bring in as many examinations as possible. That board would not be deprived of the power of negotiating with other boards for the mutual recognition of certificates.

The PRESIDENT: Will that apply to examinations and certificates out of England?

Dr. WINDLE: Certainly, within the United Kingdom.

The motion as amended was then agreed to.

An alteration was made on the introduction to the three resolutions and as adopted it read:—

The committee has considered the proposals for a school certificate in England submitted to the Council by the Board of Education of England and Wales and recommends the Council to adopt and forward to the Board the following resolutions.

Dr. WINDLE then moved the adoption of the entire report in its modified form.

This was seconded by Sir JOHN MOORE and agreed to.

Report of the Pharmacopœia Committee.

Dr. MACALISTER moved that the report of the Pharmacopœia Committee be received and entered on the minutes. The committee reported:—

From May 25th, 1904, to Nov. 22nd, 1904, the sales of the British Pharmacopœia (1898) were 705 copies and of the Addendum (1900) 99

copies. Thus up to Nov. 22nd, 35,902 copies of the Pharmacopœia and 4393 copies of the Addendum (including the Government of India edition) have been sold. The stock remaining in hand of the Pharmacopœia is 1128 copies and of the Addendum 2001 copies. It will, therefore, probably be necessary to print a fresh issue of the Pharmacopœia before next November.

The committee desire, on the retirement of Dr. Payne from the Council, to record their grateful sense of the services which he rendered to the committee, especially in relation to the formation and arrangement of its library of reference.

Dr. Norman Moore has, at the request of the committee, undertaken the charge of the library in the place of Dr. Payne.

The committee have received with satisfaction the appended communication and inclosures from the Privy Council respecting the proposed agreement on the subject of international uniformity in the pharmacopœial preparations of potent remedies. The successive stages in the negotiations on this subject are set forth in the minutes. That so large a measure of approval should have been accorded to the agreement by the signatory national authorities is a matter of congratulation. It indicates that the proposals of the International Conference at Brussels have been deemed by the Governments of Europe and America to be both desirable and practicable. The committee will naturally keep in mind the terms of the agreement when they undertake the revision of the Pharmacopœia of 1898.

The committee have been placed in communication with the Secretary of State for the Colonies, and through the Privy Council with the Government of India, on the subject of the drugs and preparations sanctioned for Indian and Colonial use in the Addendum of 1900. A paper of inquiries has been drawn up bearing on the question of the ultimate inclusion of these and other articles in the Imperial Pharmacopœia, and this paper has, by the courtesy of the Secretaries of State, been brought to the special notice of the various administrative authorities of the Empire. It is confidently expected that the replies to these inquiries will be of the greatest service to the committee at a later stage of their work on the Pharmacopœia.

Dr. NORMAN MOORE seconded the motion which was agreed to.

Finance Committee's Report.

Dr. MACALISTER moved that the report of the Finance Committee be received and entered on the minutes as follows:—

I. The committee had before them the following approximate statements of the estimated receipts and expenditure to the end of the present year, showing at a glance the position of the General and Branch Councils and the Dental Fund:—

ENGLISH BRANCH.

Dr.		*Cr.*	
Loan from Dental Fund at 3 per cent.	£1200	Consols, £9065 at 88, value	£8000
Balance of "estimated contribution" to the General Council still due	1800	Estimated receipts	500
		Probable deficit of contribution	1300

SCOTTISH BRANCH.

Dr.		*Cr.*	
"Estimated contribution" still due	£1200	Consols, £5300 at 88, value	£4664
		Estimated receipts	200
		Deficit of contribution	1000

IRISH BRANCH.

Dr.		*Cr.*	
"Estimated contribution" due	£280	Probable receipts	£280

DENTAL FUND.

Dr.		*Cr.*	
		Cash in hand	£536
		Loan to English Branch	1200

GENERAL COUNCIL.

Dr.		*Cr.*	
Loan from Pharmacopœia Account at 3 per cent.	£500	Cash and deposit (including £1000 from the builders next door)	£3100
Estimated liabilities—			
Printing Register	£400		
Council meeting	1600		
General printing	300		
Salaries	240		
Law expenses	450		
Sundries	300		
	3290	Probable amount of contribution which will be received (English Branch, £500; Scottish Branch, £200; Irish Branch, £280)	1000

The committee drew up the following report:—

It should be remembered that the "estimated contribution" from the branches is a sum fixed by the auditors and based upon the expenditure of the three previous years. It may be (and this year probably will be) found that the actual expenditure is not so great as was anticipated. The English and Scottish branches will not be able to pay their contributions in full out of income.

The questions which appear to call for consideration are as follows:—

General Council.—There has been received from the builders next door £1000 for concessions made to them and for breach of agreement. This sum cannot rightly be considered income. If the General Council transfer £1000 to the English Branch in reduction of the mortgage the English Branch can then transfer £1000 to the General Council towards the deficit of its "estimated contribution." The result of this will be that, by means of book entries and without the passing of cash, at the end of the year the General Council, after repaying the loan from the Pharmacopœia account and reducing the mortgage by £1000, will have a small cash balance.

Dental Fund.—There should be about £1700 in hand at the end of the year provided that the English Branch repays its loan.

II. The committee also considered a report relating to the provision of a new fireproof safe and the institution of a new system for filing documents in connexion with the Medical Register remitted to them by the Executive Committee at its meeting on Nov. 21st, 1904, under the following resolution:—

"That this report be remitted to the Finance Committee with the expression of the opinion of the Executive Committee that it is desirable that the suggestions in regard to the introduction of the new system and the provision of a new safe should be adopted and that the committee be requested to consider if there are any means of meeting the expense."

RECOMMENDATIONS.

I. That the General Council apply the £1000 received from the builders towards the reduction of the mortgage to the English Branch Council of the General Council's property.

II. That when the accounts of the Dental Fund for the year are made up, the available surplus standing to the credit of the fund be invested in Consols.

III. That the funds to carry out the suggestions in the report be provided by means of a loan from the Pharmacopœia account, bearing interest at 3 per cent., repayable by equal annual instalments over a period of five years.

Dr. MCCALL ANDERSON seconded the motion which was agreed to.

The Council then adjourned till Monday.

ANNUAL REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD.[1]

FIRST NOTICE.

No one can carefully study the report for 1902–03, which is that at present before us, without arriving at the conclusion that the traditions of the medical department of the Local Government Board with regard to thoroughly scientific inquiries and reports are being fully maintained under the existing régime. In fact, a study of this report makes us regret two things—firstly, that time does not allow of the production of more documents of an equally exhaustive nature; and, secondly, that these reports of the medical department do not receive a wider circulation than is at present the case. Unfortunately, in one way, these reports are so thorough and comprehensive and are so well illustrated with plates, maps, and diagrams that the cost, although in no sense prohibitive, is such that the volumes are not likely to find their way to the private libraries of every medical officer of health throughout the country. We are afraid, too, that many of the smaller local authorities in this country will hesitate before providing their medical officers of health with this very necessary literature. Moreover, in a very large number of public health offices there is practically nothing to which the name of a public health library could be properly applied. We think, however, that every medical officer of health should make application to the local authority for these volumes and that they should become not the private property of the medical officer of health but part of the library which should be found in the office of every sanitary authority.

The report proper consists of an introduction addressed by the present medical officer, Mr. W. H. Power, C.B., F.R.S., to the President of the Local Government Board. This introduction, which practically summarises the medical inspectors' reports which are contained in the volume in the form of an appendix, is admirable and it contains, we fear, as much expression of the personal opinion of Mr. Power as we are likely to get under the present system of administration. We confess, however, that it would be both inspiring and refreshing if we could have the benefit of the medical officer's views upon questions such as the provision of isolation hospitals, the value of sanatoriums for pulmonary tuberculosis, and other problems concerning which the outside public health service would be glad of the light which Mr. Power could undoubtedly throw upon them were he free to express his views. And now as regards the actual contents of the current volume.

[1] Thirty-second Annual Report of the Local Government Board 1902–03. Supplement containing the report of the medical officer for 1902–03. London: Eyre and Spottiswoode. 1904. Pp. ii.–709, with maps and illustrations. Price 8*s.* 3*d.*

In the matter of vaccination it is encouraging to find that the figures for 1901, which are those here dealt with, show that the improvement which was noticed in 1898 has been almost continuously maintained and that the percentage of children remaining unvaccinated, which in 1898 was 26·6, has been in succeeding years up to 1901 26·8, 19·9, and 17·3 per cent., and such increase in vaccination has been on the whole general throughout the country. There have been an increase of infantile vaccination in all the 43 counties of England and a decrease during the same period of "conscientious objection" in 50 per cent. of such counties. It is also satisfactory to learn that the National Glycerinated Calf Lymph Establishment has been equal to the demands which were made upon it during 1902–03 by public vaccinators. Some idea of such demand may be gathered from the facts that between April 1st, 1902, and March 3rd, 1903, no fewer than 800,100 charges of glycerinated calf lymph were issued.

In commenting upon the administrative measures taken to control the prevalence of small-pox the medical officer inferentially criticises the slack administration of certain provincial boards of guardians who, with small-pox at their gates and the public clamouring for facilities to obtain prompt revaccination, refused to open stations whereat such revaccination could be performed not only expeditiously but at a cost to the guardians of half the amount which would have to be paid were such revaccinations performed at the homes of the people. Mr. Power speaks sympathetically—we might almost say encouragingly—of those sanitary authorities whose districts were inflicted not only with small-pox but also with antagonistic boards of guardians and who at once acted *ultra vires* by practically superseding the defaulting guardians. It is, Mr. Power adds, "much to be desired that action in the above sense be legalised and chief responsibility for vaccination administration in the face of small-pox transferred from the guardians to the public health authority." As we have recently pointed out in our columns action on these lines has now been taken in respect of the urban district council in the Dewsbury union.[2]

Turning to the appendices of the volume we find in Appendix A a series of valuable reports by the medical inspectors of the Board and these reports are, as a whole, of a decidedly higher academic level than has been the case for some years past. Dr. G. S. Buchanan's report on epidemic small-pox in the union of Orsett in 1901–02 is an excellent piece of work which should be carefully studied by those whose knowledge of the influence of small-pox hospitals has been derived from certain text-books the authors of which have not, we fear, taken the trouble to master thoroughly the literature of the subject. It is well that writers upon public health should appreciate the fact that the theory of aerial convection does not rest upon certain remarkable occurrences which took place about the Fulham Hospital on one occasion only but that such occurrences recurred again and again in connexion with the operations of that hospital. Moreover, as Dr. Buchanan points out, occurrences of a similar nature, whatever may be their explanation, have since been observed at Sheffield in 1887–88; Oldham, 1893; Warrington, 1892–93; Bradford, 1893; and Glasgow 1900–01. It is regrettable that in text-books in which the subject is discussed references to these later phenomena are sometimes entirely omitted. Dr. H. Timbrell Bulstrode's report of the remarkable outbreak of enteric fever and other illnesses which followed the mayoral banquets at Winchester and Southampton and which was traced with an altogether exceptional clearness to the oysters derived from the Emsworth oyster ponds, has been already noticed in our columns.[3] One of the most interesting features about this outbreak was the very large number of persons who suffered from attacks of gastro-enteritis which came on at varying intervals after the banquets and in such fashion as to suggest that multiple poisons, in addition to the specific infection of enteric fever, were at work.

Dr. L. W. Darra Mair contributes a highly interesting and instructive report upon outbreaks of throat illness at Lincoln in 1902 and 1903 which presented some very puzzling but nevertheless suggestive features. The outbreaks were of short duration and the first one, which affected nearly 200 people, more closely approached scarlet fever in its clinical features than any other of the exanthemata. But many of the cases were quite anomalous and the general trend of medical opinion was that the disease was not scarlet fever. To us the clinical description of some of the cases savours of typical scarlet fever and we suggest that perhaps too much may have been made of the absence of albuminuria and of any evidences of infectivity in summing up the case. In some years both these factors may be very largely in abeyance. Certainly, however, many of the cases seem to have been absolutely atypical and this fact suggests that not improbably there may have been two infections at work, the vehicle of infection in both instances having been the same—i.e., the milk-supplies with which the vast majority of the cases in each of the two outbreaks was associated. The bulk of the victims were adults but this incidence upon adults seems to have been largely due to the age distribution of the population which consumed the infected milk. Dr. Klein and Dr. M. H. Gordon were unable in the first outbreak to discover in the fauces of those attacked anything like the streptococcus scarlatinæ but they found in three cases an organism resembling the yeast of alcoholic fermentation and this when inoculated into animals led to disease and death. Dr. Klein thinks it not improbable that this yeast may have been responsible for the first of the two outbreaks.

Perhaps the best suggestion to account for the outbreak was that offered by Mr. Page, the deputy town clerk of Lincoln, who observed in the autumn of 1901 that the grass in the field which separated the cowsheds of the suspected dairy from the grazing meadows was diseased and it appears that such grass was actually affected with ergot. But what Mr. Page saw was not ergot but some brownish-red algous growth which covered his boots with powder and which was probably what is known as "rust," a diseased condition from which, also, the grass in the adjoining field appears to have suffered. The view that both of these outbreaks may have been due to this fungus receives support from the fact that these outbreaks occurred in the spring and the udders of the cows may have become infected by the animals lying on the grass. But it has to be observed that in the second outbreak, which occurred in the spring of 1903, the symptoms resembled scarlet fever and the outbreak was associated with definite illness among the cows in the implicated dairy. Dr. Klein found that two of the cows presented a vesicular eruption on the udders and teats somewhat similar to that described by him in the case of the historical "Hendon disease."

The value of the bacteriological as contrasted with the chemical examination of water is shown in striking fashion by a report by Dr. Bulstrode on the water-supply of the Bridgend urban district in South Wales. This water-supply was derived from springs in the carboniferous limestone, such limestone being permeated with fissures and with "swallow" holes, or "pots" as they are termed in geological language. The report of the chemist had always been favourable to this water which was supplied unfiltered to Bridgend and at first the bacteriologist also spoke not unfavourably of the water. But soon the bacteriological examination raised suspicion that the water was polluted and owing to the persistence with which the bacteriologist—Dr. W. G. Savage, the present medical officer of health of Colchester—pressed this point the local authority invoked the aid of the Local Government Board. Dr. Bulstrode found that the spring from which the water was derived flowed into an open basin in the rock and that the evidence pointed strongly to the conclusion that this spring was liable to pollution, both through fissures and through "swallow" holes. Moreover, this basin was within a short distance of the sea and on the side of a polluted river. Hence, when the high spring tides forced the polluted water back such water flowed over into the spring basin and polluted its contents. Samples of the spring water were taken and were condemned by the bacteriologist but approved by the chemist. It is satisfactory to find that the inspector's advice that the water should be carefully filtered was at once adopted by the water company.

Dr. S. Monckton Copeman furnishes a very instructive report of an outbreak of casual cow-pox among the cows on a farm near Reigate to which attention was called in the first instance by Mr. E. L. Jacob. The steps by which the malady was conveyed from one farm to another and to the hands of the milkers were very clearly determined and set out but the attempt to discover whether the disease was traceable directly or indirectly to small-pox in the human

[2] THE LANCET, Oct. 29th, 1904, p. 1227.
[3] THE LANCET, July 18th, 1903, p. 172.

subject was not so successful. Dr. Copeman carried out some inoculation experiments in connexion with this interesting outbreak and he was able to show conclusively that the cow-pox in this instance was "true" and not "spurious." The question arose as to whether the milk of the cows affected was fit for human consumption but fortunately the accommodating attitude of the farmer rendered it quite unnecessary to resort to a legal tribunal for the settlement of the difficulty.

Dr. R. Bruce Low completes Appendix A by an exhaustive summary of the progress and diffusion of plague throughout the world in 1902 and in our second notice we shall deal with Appendix B which relates to the experimental work carried out under the direction of the Board's medical department.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In 76 of the largest English towns 7596 births and 5075 deaths were registered during the week ending Nov. 26th. The annual rate of mortality in these towns, which had been 14·9, 15·7, and 16·6 per 1000 in the three preceding weeks, further rose to 17·3 per 1000 last week. In London the death-rate was 16·8 per 1000, while it averaged 17·6 per 1000 in the 75 other large towns. The lowest death-rates in these towns were 9·3 in West Bromwich, 10·2 in Kings Norton, 11·0 in Hastings and in Huddersfield, 11·3 in Bournemouth, 11·8 in Willesden and in Devonport, 12·2 in Blackburn and in York, and 12·6 in Northampton; the highest rates were 21·0 in Grimsby, 21·6 in Liverpool, 22·4 in Wigan, 22·8 in Birmingham, 23·0 in St. Helens, 24·7 in Stockport, and 24·8 in South Shields. The 5075 deaths in these towns last week included 400 which were referred to the principal infectious diseases, against 425, 380, and 444 in the three preceding weeks; of these 400 deaths, 120 resulted from measles, 73 from diphtheria, 68 from diarrhœa, 53 from whooping-cough, 48 from scarlet fever, 36 from "fever" (principally enteric), and two from small-pox. No death from any of these diseases was registered last week in Hastings, Brighton, Bournemouth, Southampton, Reading, Handsworth (Staffs.), West Bromwich, Kings Norton, Warrington, or Swansea; while they caused the highest death-rates in East Ham, Hanley, Grimsby, St. Helens, Salford, Rochdale, West Hartlepool, South Shields, and Rhondda. The greatest proportional mortality from measles occurred in Grimsby, Liverpool, St. Helens, and Tynemouth; from scarlet fever in Rochdale; from diphtheria in Ipswich, Grimbsy, West Hartlepool, and Merthyr Tydfil; from whooping-cough in Coventry, Huddersfield, and South Shields; from "fever" in Rhondda; and from diarrhœa in Hanley and Barrow-in-Furness. One fatal case of small-pox was registered last week in Oldham and one in South Shields, but none in any other of the large towns; and only one case of small-pox remained under treatment at the end of the week in the Metropolitan Asylums hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2782, 2843, and 2773 on the three preceding Saturdays, had declined again to 2741 on Saturday, Nov. 26th; 262 new cases were admitted during the week, against 294, 294, and 259 in the three preceding weeks. The deaths in London referred to diseases of the respiratory organs, which had been 285, 324, and 361 in the three preceding weeks, further increased to 385 last week, but were 17 below the number in the corresponding period of last year. The causes of 70, or 1·4 per cent., of the deaths in the 76 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bristol, Leicester, Manchester, Bradford, Leeds, Hull, Newcastle-on-Tyne, and in 46 other smaller towns; while the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, St. Helens, Burnley, Sheffield, Sunderland, South Shields, and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the principal Scotch towns, which had been 17·8, 17·5, and 17·3 per 1000 in the three preceding weeks, rose again to 18·0 per 1000 during the week ending Nov. 26th, and was 0·7 per 1000 in excess of the mean rate during the same period in the 76 large English towns. The rates in the eight Scotch towns ranged from 11·0 in Leith and 13·7 in Aberdeen to 20·7 in Dundee and 20·9 in Greenock. The 594 deaths in these towns last week included 21 which were referred to whooping-cough, 18 to diarrhœa, nine to diphtheria, eight to measles, three to "fever," and one to scarlet fever. In all, 60 deaths resulted from these principal infectious diseases last week, against 58, 59, and 47 in the three preceding weeks. These 60 deaths were equal to an annual rate of 1·8 per 1000, which was 0·4 per 1000 above the mean rate last week from the same diseases in the 76 large English towns. The fatal cases of whooping-cough, which had been 17, 20, and 19 in the three preceding weeks, rose again last week to 21, of which 18 were registered in Glasgow and two in Aberdeen. The deaths from diarrhœa, which had been 27 and 19 in the two preceding weeks, further declined to 18 last week, and included 11 in Glasgow and four in Dundee. The fatal cases of diphtheria, which had been eight, three, and two in the three preceding weeks, rose again last week to nine, of which five occurred in Glasgow and three in Edinburgh. The fatal cases of measles, which had been nine, eight, and five in the three preceding weeks, increased again to eight last week, and included five in Aberdeen. Of the three deaths from "fever" registered last week two were recorded in Glasgow. The deaths attributed to diseases of the respiratory organs in these towns, which had been 119, 136, and 154 in the three preceding weeks, further rose last week to 174, and were 26 in excess of the number in the corresponding period of last year. The causes of 20, or more than 3 per cent., of the deaths registered in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 21·5, 20·2, and 24·2 per 1000 in the three preceding weeks, declined again to 22·6 per 1000 during the week ending Nov. 26th. During the past four weeks the death-rate has averaged 22·1 per 1000, the rates during the same period being 16·0 in London and 16·7 in Edinburgh. The 164 deaths of persons belonging to Dublin registered during the week under notice showed a decline of 12 from the number in the preceding week and included 21 which were referred to the principal infectious diseases, against 13, 12, and 20 in the three preceding weeks; of these, 12 resulted from measles, four from whooping-cough, four from diarrhœa, and one from scarlet fever, but not any from small-pox, diphtheria, or "fever." These 21 deaths were equal to an annual rate of 2·9 per 1000, the death-rates last week from the principal infectious diseases being 0·8 in London and 0·6 in Edinburgh. The deaths from measles, which had been six, seven, and eight in the three preceding weeks, further increased last week to 12. The four fatal cases of whooping-cough corresponded with the number in the preceding week, while the four deaths from diarrhœa showed a slight decline. The 164 deaths in Dublin last week included 28 of children under one year of age and 48 of persons aged 60 years and upwards; the deaths of infants were slightly fewer than in the preceding week, but the deaths of elderly persons showed an increase. Seven inquest cases and eight deaths from violence were registered; and 55, or more than a third, of the deaths occurred in public institutions. The causes of 8, or nearly 5 per cent., of the deaths registered in Dublin last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Fleet Surgeons: C. S. Woodwright to the *Irresistible*, on recommissioning, and V. G. Thorpe to the *Hercules*, temporary.

ROYAL NAVAL VOLUNTEER RESERVE.

The undermentioned gentleman has been appointed a Surgeon:—Thomas Caldwell Litler Jones (dated Nov. 25th, 1904).

ROYAL ARMY MEDICAL CORPS.

Lieutenant MacDonald has left Aldershot for service in India. Major H. D. Rowan is held in readiness to embark for India for service in the Punjab. Lieutenant-Colonel E. M. Wilson, C.B., C.M.G., D.S.O., retired-pay, is

appointed to the medical charge of the Military Prison at Aldershot. Captain H. J. M'Grigor joins at Woolwich for duty.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant A. Y. Greenwood, 3rd Lancashire Royal Garrison Artillery (Volunteers), to be Surgeon-Lieutenant (dated Nov. 26th, 1904).

IMPERIAL YEOMANRY.

Denbighshire (Hussars): Richard Geoffrey Williams to be Surgeon-Lieutenant (dated Nov. 26th, 1904).

VOLUNTEER CORPS.

Rifle: 4th Volunteer Battalion the King's (Liverpool Regiment): Surgeon-Lieutenant E. L. Hughes resigns his commission (dated Nov. 26th, 1904).

THE REPORT OF THE BUREAU OF MEDICINE AND SURGERY OF THE UNITED STATES NAVY.

The report of the Surgeon-General, chief of the Bureau of Medicine and Surgery of the United States Navy, for the year 1904 is a document which will repay careful perusal. From it we learn that the difficulty of securing qualified medical men for the navy is rendered greater by the fact that a lower rate of pay in some grades is given in the navy than in the army. In the case of assistant surgeons employed on shore duty the pay is 15 per cent. less than the pay received by assistant surgeons in the sister service. The question of rank is dealt with and it is suggested that Congress shall be asked to change the name of the different grades as follows:—In place of surgeon-general, surgeon-admiral; and in the other grades, medical director to become surgeon-captain; medical inspector, surgeon-commander; surgeon, surgeon-lieutenant-commander; passed assistant-surgeon, surgeon-lieutenant; and assistant-surgeon, surgeon-lieutenant (junior grade). The recommendation made in two preceding reports for the enactment of legislation authorising the employment under the control of the Bureau of Medicine and Surgery of skilled dentists for service in the navy is renewed. With reference to the model hospital ship for 300 patients, of which plans have been laid down, it is pointed out that such a vessel will prove far more efficient than a ship diverted from a commercial use and hastily converted into a hospital in time of war.

The health of the Navy and Marine Corps for the calendar year 1903, as shown by the statistical returns was good, the ratio of admissions to the sick list per 1000 of strength being less than the average for the eight years prior to 1902. The ratio is slightly greater, however, than that for the last year. The average strength of the active list during the year 1903 was 37,248, which is an increase of about one-fifth over the previous year, the average strength for 1902 being 31,240. The total number of admissions to hospital for all causes was 28,569, the ratio per 1000 of strength being 782·24, as compared with a ratio of 767·63 for the previous year, and 797·10 for the eight preceding years. There were 24,545 admissions for disease and 4024 for injury, giving ratios of 671·82 and 110·14 respectively. The corresponding ratios for 1902 were 640·07 and 125·56. There were 224 deaths during the year, giving a ratio of 6·01 per 1000, which is considerably less than that of the previous year (6·75), or the average of the eight preceding years (6·78). 164 deaths occurred from disease, with a ratio of 4·40, and 60 from injury (including poison) with a ratio of 1·60. There was a general increase in admissions for diseases of the digestive apparatus. With the exception of the class of "general infectious diseases" venereal diseases gave a greater number of sick days than any other class. The total of 114,571 sick days due to venereal disease is equal to the entire loss to the service of 314 men for the year. The total admissions for venereal disease during the year are 1207 in excess of 1902 and the total sick days are 22,572 in excess. This cannot be accounted for by the increase in strength. In comparing the above figures with those of the previous year it is noteworthy that while the ratio of admissions to the sick list per 1000 of strength is greater than in 1902, the mortality is not only less than that of 1902 but lower than the average for the past eight years.

REGIMENTAL HOMES AT DEVIZES.

At Devizes, on Nov. 24th, the Countess of Pembroke formally opened two regimental homes for disabled soldiers which have been erected as a memorial to Prince Christian Victor and officers and men of the Wiltshire Regiment who were killed during the South African war.

ARMY EXAMINATIONS AND FOGS.

This is the season for holding competitive examinations for army candidates and it is likewise the time for the occurrence of darkness and fogs. No one can tell when he goes to bed at night whether he will or will not wake in the morning in a dense fog rendering vehicular traffic or even ordinary street locomotion a slow and difficult or possibly an impracticable undertaking. We have often wondered whether any provision has been made in such circumstances for the non-attendance of candidates at such examinations or for their being unavoidably delayed beyond the hour fixed for their being present. They cannot all locate themselves close to the place of examination. It occurs to us that something should be done to meet *bonâ-fide* cases of this sort if only as a matter of justice to the candidates and to their parents who have been put to much expense in their education.

THE WAR IN THE FAR EAST.

There is but little news of a general kind from the seat of war and none of any special medical interest to be chronicled this week. The armies on the Shaho have had some desultory fighting and the fierce assaults on Port Arthur are still going on. But there is one matter of present and growing importance which calls for comment. It requires no great exercise of the imagination to form some idea, even if it be a very inadequate one, of the situation and of what must be the hardship and suffering of the belligerent armies now wintering in Manchuria. Their sufferings and hardships must be considerable, as all the available sources of water-supply for men and animals are frozen, the ice has to be thawed, and there is said to be but a scanty supply of fuel. If all we hear about the army commanded by General Kuropatkin be true—viz., that the troops at Mukden and elsewhere in Manchuria are badly hutted and that the stores of warm clothing are inadequate to meet all their requirements—they will need all their stolid fortitude to sustain them in such circumstances. It is officially stated, however, that the health of the Russian army is fairly satisfactory, but it cannot remain so under such conditions as are described and, in addition to frostbite, dysentery and outbreaks of other forms of camp disease may be expected to occur, if, indeed, these are not already prevalent. These remarks equally apply to the Japanese armies, but in their case it is stated that they are well supplied with warm clothing of good design and quality and the comparative nearness of these armies to their base will greatly facilitate the work of furnishing the Mikado's forces in Manchuria with all the needful requisites for a winter campaign. The conditions in the case of General Kuropatkin's army are very different and make the problem one of very great and increasing difficulty. To feed and to clothe such an enormous force operating at such a distance from Russia and to provide it with all necessary war material and to transport all the sick and wounded who have to be removed from the Manchurian hospitals to base hospitals in Russia will be a very great, difficult, and costly undertaking.

Miss McCaul's work, entitled "Under the Care of the Japanese War Office," is to be published by Messrs. Cassell during the present week. It should, we think, prove both interesting and instructive.

The Army Medical Department has drawn the attention of the responsible officers at home stations to the necessity for reducing the expenditure caused by the employment of civilian practitioners.

Correspondence.

"Audi alteram partem."

CANCER OF THE CERVIX COMPLICATING LABOUR.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Nov. 19th, p. 1449, Dr. Herbert Spencer advocated the old Porro-Cæsarean operation with the serre-nœud instead of conservative Cæsarean section for *inoperable* cases of cancer of the cervix uteri complicating labour but he does not bring forward any case of his own in support of his view. During the discussion which followed the reading of his valuable paper at the Obstetrical Society

of London on Nov. 2nd, Dr. Spencer asked for the experience of others and Dr. G. E. Herman, Dr. Cuthbert Lockyer, and myself each gave an instance of a successful conservative Cæsarean section under the circumstances named. No instances of Porro's operation were cited. Thus the expressed practical experience of those present was in favour of the conservative operation. Dr. Herbert Spencer now quotes foreign statistics in favour of his view and he gives a 60 per cent. mortality (Sarwey) for the conservative operation and 35 per cent. for the Porro operation (Porro Report, 1901). It is unfortunate that these statistics are not compiled from the same sources and that they are not taken from concurrent series of cases.

The "Porro Report" statistics appear to relate to 38 Porro operations with 14 deaths (36·8 per cent.) in inoperable cases, the results of which are compared in the tables with those of other methods of hysterectomy for operable cases, but no comparison is drawn between them and conservative Cæsarean section operations during the same or any periods of time. Sarwey, however, does actually compare the two operations in question and his figures do not support Dr. Spencer's views as to the great relative value of Porro's operation in these cases, for though 20 deaths (60 per cent.) occurred in 33 cases of conservative Cæsarean section 13 deaths (54 per cent.) occurred in 24 cases of Porro's operation. This is not a large enough difference upon which to found an argument. Theoretically, it is easy to agree with Dr. Spencer as regards the risk of septic infection of the placental site in the conservative operation. Taking, however, my own case as a practical test it will be seen that the argument does not always apply.

A woman, a 9-para, aged 35 years, was eight months pregnant. The cervix, vaginal vault, and the whole of the pelvic connective tissue were occupied by a hard, fixed mass of cancerous growth. The patient was in labour when admitted to Charing Cross Hospital, so I delivered the child by Cæsarean section. The uterine incision was directly over the placental site. It was then found that the growth in the uterus reached as high as the superior attachment of the bladder. Owing to the fixation of the lower uterine segment it would have been impossible to draw the uterus sufficiently out of the wound so as to avoid amputation through the placental site and at the same time not to go perilously near to the malignant growth. It is evident that to apply a serre-nœud round the uterus close to a carcinomatous growth would court disaster; and it is equally evident that if any portion of the placental site, or, indeed, any large portion of the uterine body were left below the serre-nœud the risk of sepsis would be very little less than in a conservative operation.

Dr. Spencer will agree with me as regards my case that as the uterine incision and the ligatures involved the placental site the risk of sepsis was much increased. Yet the patient recovered well from the operation. When it is also considered that a Porro's operation with separation of the strangulated mass by sloughing involves about five weeks' tedious convalescence in a woman already exhausted by a vital disease, and who has, at the best, only a few months to live (my own case lived only three months), it will be agreed that even the theoretical advantage of a Porro's operation is doubtful. Personally I prefer a conservative Cæsarean section in these inoperable cases, though in a not very advanced case, where the patient is fairly robust, where the uterus is still slightly mobile, and the placental site well above the serre-nœud, a "Porro" would be an alternative which should be carefully considered by the operator. I am, Sirs, yours faithfully,

AMAND ROUTH, M.D. Lond.

Manchester-square, W., Nov. 28th, 1904.

CANCER GENESIS.

To the Editors of THE LANCET.

SIRS,—In replying to Dr. J. Beard's letter in THE LANCET of Nov. 19th, p. 1447, I wish at the outset to make it perfectly clear that this is no idle dispute as to priority of publication. No one can be more deeply conscious than I am as to the futility of such disputes. I have long recognised that those who promulgate new doctrines are merely the organs of antecedent, predetermined, intellectual movements: as Leibnitz has so well said, "The present is pregnant with the future." This being so, the ever-increasing tendency of modern scientific authors to ignore their intellectual predecessors cannot be too strongly reprobated. Nowadays this kind of delinquency is far too much in evidence. As the writer of a modern history of medicine, referring to this very subject, says: "There is a half-confessed feeling that we are the men; and that knowledge was born with us." I beg leave to enter an emphatic protest against such selfish, ridiculous, and unscientific conceit.

It is a flaw in the character of the great Herbert Spencer that he never would recognise the still greater Auguste Comte as his intellectual father, and yet nothing is more certain than that all his "*idées mères*" had been previously enunciated by Comte. Every impartially minded person who has studied the subject must admit that Dr. Beard's doctrine is related to Weismannism in a precisely similar way, and to complete the parallel he now repudiates the relationship. Similarly, for certain important parts of his doctrine he has Haeckel for his predecessor and for certain other parts I stand in a similar relation. Indeed, my doctrine of tumour formation includes and embraces every essential of his tumour theory and much besides, just as the part is embraced by, and included in, the whole. There is only one important exception and that is with regard to the modern doctrine of "germ cells," the essential facts of which had not been discovered when my work was written; but of this more anon.

Biology is greater than embryology, even in its comparative form, and if there is one branch of it more than another in which the origin of tumours specially centres that branch is *teratology*—the Cinderella of the biological sciences—as I have specially pointed out in my work. Moreover, in my treatises on uterine, mammary, and vaginal tumours I have, in the same spirit, specially indicated the not infrequent association of malignant and non-malignant tumours of these parts, with local developmental irregularities.

Two items in Dr. Beard's letter strike me. In the first he belittles my publication without, as he says, having read it; in the second, he accuses me of having criticised his doctrine without having read his essays. Both of these are purely gratuitous assumptions for which, as a matter of fact, there is absolutely no basis whatever. With regard to my work on "The Principles of Cancer and Tumour Formation," he reproaches me because it is not in the Edinburgh University library, as if the fault were mine. If it were not treason to hint at such a thing, is it not just possible that the management of this institution may fall a little short of the best possible? And is it altogether inconceivable that even Edinburgh scientific life may occasionally need just a little quickening in respect to matters of this kind? I have long been aware of the fact that the scientific output of Edinburgh is by no means commensurate with the richness of its endowments. It is passing strange that Dr. Beard should have to resort to the University library to read my book, for on July 7th, 1902, I sent him a copy of it with my own hand. Although Dr. Beard cannot recognise a family likeness between his hypothesis and my tumour doctrine he appears to be much impressed by the "close correspondence" between his ideas and those expressed by Dr. A. S. Vallack in a contribution to a recent number of the *Australian Medical Gazette*. Well, I have read this paper and I have not the least hesitation in asserting that the ideas there enunciated are merely echoes of my own publication from across the water and they are by no means the first ones that have reached me. When Dr. Beard has read my book he will be able to appreciate this.

I have now to deal with Dr. Beard's second assumption as to my presumed ignorance of his general biological doctrines, as set forth in his numerous memoirs, and I flatter myself that in this respect I shall be able to give him complete satisfaction. To be quite frank, I regard the great body of scientific truth relating to growth, reproduction, variation, heredity, and allied biological problems as being more fully enshrined in the works of Spencer and his great lieutenants, Darwin and Haeckel, than in any other publications; and it is mainly on this basis that I have built up my doctrine of tumour formation. I have convinced myself that Weismannism is a degeneration of Spencerism, and that Beardism is a degeneration of Weismannism. I am satisfied that both alike as to their main contentions must be regarded as being quite outside the pale of scientific truth, owing to the essential faultiness of their initial conceptions. In my former letter I stated my conviction that the reproductive properties of somatic and germ cells are the same in kind and that they differ only in degree. Although this is the rock on which Weismannism is splitting and on which

the much frailer craft of Beardism will be dashed to pieces, your correspondent declines to discuss this crucial matter, because, forsooth, "the facts on which it rests are not extant in the literature of science." I say most emphatically that the facts relating to this important matter are extant; and my book on the Principles of Cancer and Tumour Formation simply teems with them. From this standpoint what are we to think of the fact that a single scale from the leaf or stem of a plant suffices for the reproduction of the whole organism; or that nearly as small a particle of a hydra is able to reproduce the whole organism? Does not the whole history of gemmation in plants testify against fundamental difference between somatic and germ cells? Is it not the same with gemmation in animals, with asexual reproduction, with metagenesis, and with parthenogenesis? Do not the phenomena of repair and the reproduction of lost parts testify to the same effect? I say that they do.

I now come to that part of our subject which Dr. Beard appears to regard as his special preserve—viz., the "germ cells." I fear he will not be best pleased to hear that the doctrine of germ cells and their relation to reproduction, double monsters, twins, and tumour formation, was first enunciated and experimentally proved as long ago as 1888 by Wilhelm Roux[1] and that his highly important and complete demonstrations were subsequently confirmed, extended, and amplified by others. It is to these experimentally verified researches that we owe the modern doctrine of germ cells and not to Dr. Beard's histological observations on Raja, &c., which by themselves, owing to the absence of any reliable criterion for distinguishing between somatic and germ cells, could never have produced conviction. It is strange that Dr. Beard makes no suitable acknowledgment to these, his intellectual predecessors, in any of his writings that I have seen.

I am, Sirs, yours faithfully,

Clifton, Bristol, Nov. 19th, 1904. W. ROGER WILLIAMS.

[1] Archiv für pathologie Anatomie, Band cxiv., S. 113 and S. 246.

THE TEACHING OF HYGIENE IN SCHOOLS AND UNIVERSITIES.

To the Editors of THE LANCET.

SIRS,—At the present time there seems to be a righteous wave of both professional and popular opinion in favour of the teaching of hygiene in the elementary schools and even in the universities. I have for many years been endeavouring to induce the Board of National Education for Ireland to include this subject in the course of instruction for its teachers with the ultimate aim of reaching the pupils. The Queen's nurses are obliged to attend a course and pass an examination. The Department of Agriculture and Technical Instruction for Ireland require the ladies who are candidates for the positions of instructresses in domestic economy throughout the country to attend a very complete course and pass an examination. This department has also made arrangements for classes in hygiene for sanitary inspectors, plumbers, &c. The authorities of Maynooth College, the great Catholic ecclesiastical seminary in Ireland, have instituted a course for their students. It will appear strange then when I mention that the Conjoint Board of the Royal Colleges of Physicians and Surgeons in Ireland do not require the candidates for their diploma to attend a course. All that is required of them is the attendance of a few lectures which are included in the short summer course of medical jurisprudence and toxicology. In 30 lectures of one hour each the students are supposed to receive sufficient instruction in medical jurisprudence, toxicology, and sanitary science. This in Ireland, where many of the candidates of these Colleges become dispensary medical officers and as such ex-officio medical officers of health of their districts. I need hardly say this is a grave injustice to both the students themselves and the public. That the men when appointed appreciate this I know from many of themselves, indeed I never met a student who did not even when a student acknowledge this defect in the curriculum.

The practical result in the future will be that when some grave health question arises in their district—often remote—they will be obliged to seek information from the better instructed national school boy, the district nurse, or the Catholic curate. The present result is that knowing little on sanitation—they have not been taught it—they are not too anxious to raise any question of sanitary reform. Many years ago I acted as secretary to a petition to the General Medical Council advocating the inclusion in the curriculum of the various medical corporations of a course of sanitary science. That petition was largely and influentially signed by members of the profession. The Royal University of Ireland and the Conjoint Colleges in London thereupon added the course to their curriculum, but the Dublin Colleges, where on account of the positions of the dispensary medical officers, it was most needed, did not do so. Is it too late to expect that they will do so now or that the General Medical Council will call their attention to the necessity of so doing? I may point out that one of the results of the absence of such a course in the Conjoint curriculum is that of the three medical schools in Dublin one alone, the Catholic University Medical School, gives a course in sanitary science; neither the school of the Royal College of Surgeons nor Trinity College Medical School does so. The medical press, which is rightly advocating the teaching of hygiene in lay schools and of popular lectures, should even more strongly impress upon the Irish Conjoint Board the necessity of an efficient course for their candidates.—I am, Sirs, yours faithfully,

ANTONY ROCHE, M.R.C.P. Irel.,
Professor of Public Health, Catholic University Medical School.

Dublin, Nov. 26th, 1904.

CHARITY THAT BEGINS AT HOME.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Nov. 5th you published a letter from an ingenious correspondent, "Vindex," on Medical Charities, in which he called attention to the fact that of 240 London practitioners who subscribed for the entertainment of our French *confrères* only 68 are subscribers to the British Medical Benevolent Fund and 98 subscribers to the Epsom College. Being the President of the Society for Relief of Widows and Orphans of Medical Men, I also have been induced to compare the entertainers with our list of members and find that 25 only have joined the society.

The Society for Relief of Widows and Orphans of Medical Men was founded in 1788 and has £100,000 invested. Members must at the date of their election live within 20 miles of Charing Cross and they pay an annual subscription of two guineas for 25 years only.

The widow or orphan of any person who was at his decease a member of the society, and had been so for three years immediately preceding his decease, is eligible to receive relief from the funds. The widow of a member who has no certain income or provision exceeding altogether the yearly value of £80 is eligible to receive, half-yearly in advance, such relief from the society as the court of directors shall determine. The widow of a member who is left with a child or children under 16 years of age entirely or in part dependent on her, and whose certain income or provision does not exceed altogether the yearly value of £15 for each child in addition to the £80, is eligible to receive such additional assistance half-yearly in respect of each child under 16 years of age as the court of directors shall determine. From November, 1793, to Dec. 31st, 1903, the sum of £175,443 19s. 6d. had been distributed in ordinary relief amongst 270 widows and 347 children, comprised in 284 families relieved, besides other kinds of relief.

May I venture to call the attention of London and suburban practitioners, and especially the younger members, to the advantages offered them by this society and thank you by anticipation for inserting this letter?

I am, Sirs, yours faithfully,

CHRISTOPHER HEATH.

Cavendish-square, W., Nov. 25th, 1904.

THE ACTION OF PERCHLORIDE OF IRON IN BLOOD POISONING AND OTHER DISORDERS.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Nov. 26th, p. 1526, Dr. G. C. Garratt states that chlor-albumin is "a form in which chlorine might be administered, and which seems more suitable" than chlorine water, euchlorine or the perchloride of iron, to the action of which I referred in your previous issue (p. 1415). He adds that it is "sufficiently stable to allow of accurate dosage and yet contains as much as 6 per cent. of chlorine which it readily yields up."

May I venture to ask, In what form is the chlorine given up? Is it in combination with hydrogen or other base or is it evolved as free chlorine? This is a point of some importance, as these substances produce very different

therapeutic effects. Chlor-albumin is prepared by largely diluting white of egg with water, faintly acidified with acetic acid, filtering from precipitated globulin, &c., and then passing through the solution a stream of chlorine gas until an excess is present. The precipitate is filtered off, washed, and dialysed till as free as possible from uncombined chlorine, and then contains the halogen in definite combination.[1] To determine the amount of chlorine in the chlor-albumin this compound is heated in a sealed tube with nitric acid and nitrate of silver to 250° C. 0·2410 gramme treated in this manner gave 0·0625 AgCl = 6·41 per cent. Cl.[2] Such a process is hardly consistent with the view that the proposed remedy "readily yields up" its chlorine. If, however, it does so (and the potassium iodide and starch test would settle the matter) we have a valuable addition to our resources. If, on the other hand, the chlorine only exists in "definite combination" in the chlor-albumin I should fear that the compound is not more useful either as a bactericidal or therapeutic agent than NaCl or common salt, in which compound the chlorine also exists in "definite combination."

I am, Sirs, yours faithfully,

Cambridge, Nov. 29th, 1904. P. W. LATHAM.

THE FUTURE SUPPLY OF MIDWIVES.

To the Editors of THE LANCET.

SIRS,—In urging the necessity for a sufficient supply of midwives under the new Act the danger of the excessive supply should be borne in mind. I learn from Italian colleagues that in this country the supply of legally qualified midwives exceeds greatly the demand and that in consequence the old adage that Satan finds occupation for idle hands is illustrated painfully. It is quite common for batches of midwives to be brought up for trial charged separately with the procuring of abortion. It will be well if care be taken in England to avoid this undesirable condition of affairs not only by limiting the supply of midwives but also by a careful selection of women suitable for the training.

I am, Sirs, yours faithfully,

Florence, Nov. 28th, 1904. LAING GORDON, M.D. Edin.

PROLONGED UTERO-GESTATION.

To the Editors of THE LANCET.

SIRS,—I have been much interested in reading the letters in THE LANCET of cases where pregnancy has been prolonged over the normal period. I send the following case from my notes of 1902. On May 21st I was called to see Mrs. A. who believing herself pregnant for the fifth time wanted me to attend her. She informed me that menstruation ceased on Jan. 6th. I examined her and found her about four months pregnant and informed her that about Oct. 15th would be the date of delivery. She quickened on May 30th. She had an attempt at labour that month—October—and in November but the pains were slight and passed off. They commenced again on Dec. 9th, going on fitfully till Thursday night, when they became stronger, and the baby, a male, was born, at 2 o'clock on Friday morning, Dec. 13th. The child was a quaint, monkey-like creature with thick eyebrows, looking like a miniature old man. If we take the cessation of her last period as a guide this gives a total of 340 days' gestation.

I am, Sirs, yours faithfully,

JAMES DUNBAR-BRUNTON, M.B., C.M. Edin.

Leatherhead, Nov. 28th, 1904.

AMBULANCE DOGS IN WARFARE.

To the Editors of THE LANCET.

SIRS,—In view of the scepticism of one of your annotators as to the use of ambulance dogs I think the following disproves his remarks (see *Daily Mirror*, Oct. 7th, 1904, *U.S. Gazette*, and other papers). Captain Persidsky of the late Count Keller's staff writes: "In finding the wounded men with which the millet fields are strewn nothing has succeeded like our seven dogs. Their intelligence, especially the English bred ones, is extraordinary. During the last fight 23 men lying in unsuspected spots were found in this way," &c. The chief duty of the ambulance dog is to find the *missing* and wounded. What they carry is of minor importance. Anybody who knows anything about dogs knows how invaluable a dog is in tracking a poacher, or looking for a dead body or lost person, as we use collies for tracking wounded deer in the forests.

A really reliable retriever is cheap at £25, as all shooting men know, as he soon saves his cost in the game he recovers, and perhaps a soldier values his life at a little more than £25. My dogs were thoroughly tested by Sir Charles Tucker, K.C.B., Commanding Forces in Scotland, at Stobs camp this year, who recommended their adoption by the War Office. I see the *Field* of this week endorses his opinion.

In conclusion, I may add that in Germany not only the regular troops have ambulance dogs but the volunteer medical staff corps, Sanitäts-Kolonnen, and Sanitäts-Abtheilungen, and I am quite content to submit to the opinion of the Kaiser as regards dogs for military purposes, as he is a thorough sportsman and soldier.

I am, Sirs, yours faithfully,

E. HAUTDEVILLE RICHARDSON, F.Z.S.
(Major, late 45th Regiment.)

Nov. 29th, 1904.

THE LATE PROFESSOR FINSEN OF COPENHAGEN: INTERNATIONAL MEMORIAL.

To the Editors of THE LANCET.

SIRS,—Lupus is a terrible disease. For centuries it has scourged humanity and defied medical science. Suddenly a remedy was discovered—by a dying man. He knew perfectly well that he was dying but with unflinching courage he devoted every available hour of his life to the researches which ended almost simultaneously in his triumph and his grave. The efforts of this remarkable man—the late Professor Finsen of Copenhagen—were not only national, they were directed to ameliorate the sufferings of all mankind. In this country his methods were sustained and encouraged by the direct support of Her Majesty the Queen who herself presented to the London Hospital a complete set of lamps, &c. In the last year of his life he was granted the Nobel prize, but he, a poor man, refused more than quite a small amount and devoted the rest to his institute.

A movement has been initiated in Denmark for the erection of a monument to the late Professor Finsen by national subscription and a committee has been appointed to carry that proposal into effect. It has been thought that many members of the medical profession and of the public—including patients—outside Denmark would be anxious to join in doing honour to the memory of a man who has worked so splendidly and unselfishly for his fellow men.

At the request of the Danish committee a British committee has been formed for the furtherance of the scheme. The British committee has been graciously permitted to announce that donations of £50 from His Majesty the King and of £100 from Her Majesty the Queen have been received.

Subscriptions may be paid to the Finsen Memorial Fund at the National Provincial Bank, 112, Bishopsgate-street, E.C. We are, Sirs, your obedient servants,

SYDNEY HOLLAND.
FRANCIS LAKING.
FREDERICK TREVES.
MALCOLM MORRIS.

Nov. 31st, 1904.

CHLOROFORM ANÆSTHESIA.

To the Editors of THE LANCET.

SIRS,—You published last week an abstract of a paper communicated by me to the Royal Medical and Chirurgical Society. I should feel obliged if you would kindly amplify it by the following note upon the chloroform inhaler. The instrument is designed to maintain a constant percentage of chloroform vapour despite fluctuations in the strength of the respirations. Up to a 2 per cent. vapour value this principle is effected automatically by reason of the disposition of the long connecting tube *between* the chloroform and the air apertures and the consequent introduction of viscosity effects. Over 2 per cent. this automatic compensation fails, and the same result is attained by the occasional adjustment of the compensating slit, the adjustment being regulated according to the force of the inspiration, which is indicated on the valve scale. Furthermore, the chloroform container is so constructed as to be rigidly fixed to a

[1] Journal of Physiology, vol. xxii., pp. 191 and 185.
[2] Loc. cit., pp. 187 and 192.

table and an excess of vapour arising from fortuitous agitation of the chloroform is thus avoided.

I am, Sirs, yours faithfully,

A. G. LEVY.

Devonshire-street, Portland-place, W., Nov. 28th, 1904.

POST AUT PROPTER?

To the Editors of THE LANCET.

SIRS,—I notice in THE LANCET of Nov. 26th a report of a meeting of the Pathological Society at which two members reported two cases of Emphysematous Gangrene *due to* the Bacillus Aerogenes Capsulatus. May I suggest in all humility that the gangrene was due to the serious injuries the patients sustained—in one a crush of a child's leg by a tramcar wheel, in the other a crush of the forearm in an alcoholic woman—and that the bacilli were due to the gangrene and not the gangrene to the bacilli? Both cases seem to me to have required primary amputation.

I am, Sirs, yours faithfully,

Nov. 28th, 1904. AN OLD HOSPITAL SURGEON.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Chair of Anatomy at the University.

A NUMBER of candidates have come forward for this position, amongst whom are Dr. C. Addison of Charing Cross Hospital, London; Dr. R. J. A. Berry of Edinburgh; Dr. T. H. Bryce of St. Margaret's College, Glasgow; Dr. D. Hepburn of Cardiff; Mr. F. G. Parsons of St. Thomas's Hospital, London; and Dr. A. Robinson of King's College, London.—A few days ago Professor B. C. A. Windle was entertained at a banquet by the Roman Catholics of Birmingham and the district. Dr. Ilsley, the Roman Catholic bishop of Birmingham, presided, and an address was presented to Professor Windle in which he was thanked for his services to Roman Catholic education during the last 20 years.

Preservatives in Milk.

An important prosecution was recently undertaken by the health committee of the city of Birmingham against a milkman for selling milk with which a boric preservative had been mixed, the counsel for the prosecution stating that what was sold was not milk but preserved milk. The city analyst, Mr. Liverseedge, said that he found in "Keep's Preservative," the substance which had been mixed with the milk, a mixture of dried borax and boric acid, the amount of which was equivalent to 91 per cent. The effect would be to act as a preservative. Two ounces to the churn would give 47 grains per gallon. These were not the only samples of milk this year which had been found to contain a preservative, for there had been eight such, but this sample contained the greatest number of grains per gallon. In this case there were 35 grains per gallon whilst in other instances eight, ten, and 21 grains per gallon had been found. 600 samples had been examined for preservatives during the year. Dr. J. Robertson, the medical officer of health, stated that milk containing as large an amount of boric acid as this did would undoubtedly be injurious to children living entirely on milk and to invalids whose diet was mainly milk. He thought—in fact he was sure—that having to take milk which contained as much as 35 grains per gallon of boric acid would in some cases make all the difference between recovery and non-recovery. The acid tended to retard digestive processes and was injurious to health. He said unhesitatingly that boric acid should not be used in milk at all. The clerk to the magistrates said that he did not think the whole of the medical men of the country were unanimous on this question. Were there not one or two expert witnesses who disagreed with the others' conclusions? Dr. Robertson said that the medical profession of the country was unanimous on the subject. The defendant said that so far as milk was concerned September was the worst month in the year, for the cows were tied up. He then used a preservative, as was the general custom in Birmingham. He understood that the preservative which he used was pure, wholesome, and altogether harmless. After hearing the solicitor for the defendant, the chairman of the magistrates said that according to the medical evidence the use of the preservative was dangerous to health. At the same time they had considered what was said by the defendant and by his solicitor on his behalf. In the view of the bench the defendant had been led to purchase the preservative thinking he might preserve his milk with it without rendering it injurious. They did not think that he had used it with any intention of defrauding. At the same time it would be wise for defendant and others dealing with this kind of preservative to give careful attention to what the medical officer had said with regard to it. Whilst a certain percentage was allowable in milk or cream, an excess brought about what they had to deal with that morning. The case would be met by the infliction of a nominal fine of 10*s.* and costs. Two other summonses were withdrawn.

Public Health Matters in Shropshire.

At a recent meeting of the Shropshire county council the chairman of the executive committee in presenting the report of his committee emphasised the gravity of the prevalence of anthrax in the county, in which since the middle of September there had been something like 30 outbreaks. In no county in England had there been so many outbreaks in so short a period and this in spite of the fact that every precaution had been taken to prevent the spread of the disease. The chief constable had been able to report favourably upon the Indian method of cremating the carcasses of diseased animals but the cost of the precautionary measures undertaken by the county since March had amounted to £613.—The medical officer of the county reported that for the second quarter of the year the number of births in the registration county was 1762 and the number of deaths 992, the latter comparing with an average of 1010 for the second quarter of the previous three years. Of these deaths 185 were of infants under one year of age and 423 were of persons 60 years of age and upwards. Compared with the previous quarter there had been a considerable increase in the amount of scarlet fever and diphtheria.

Nov. 28th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Liverpool School of Tropical Medicine: Sleeping Sickness: Discovery of a New Disease.

THE members of the expedition despatched by the Liverpool School of Tropical Medicine have sent to the committee a report on their work in the Congo, dated Sept. 20th. The expedition left Leopoldville on June 23rd and reached Stanley Falls (where the report was written) on Sept. 15th. One of the steamers of the Congo State was placed at their disposal by the Belgian Government and they were thereby enabled to make more satisfactory observations on the spread and distribution of sleeping sickness along the Congo river from the Pool to the Stanley Falls, a distance of nearly 1000 miles. At different points along the route short journeys, from four to ten miles, were made inland in order to examine the population of villages situated some distance from the river banks. At the same time collections were made of tsetse flies, of the Congo river maggot, of mosquitoes, and of other biting flies. A disease the nature of which had been previously unrecognised occurred among the Congo State cattle at Coque, Chatville, Anvers, and Romee. It was investigated and its pathogenic agent was shown to be a trypanosome the species of which is as yet undetermined. It was considered advisable to communicate the results of this work to the Governor-General at Boma, in order that immediate measures might be taken against the disease. It was no exaggeration to say that sleeping sickness was a terrible scourge,' especially among the riverine tribes, which, by the way, were generally totally distinct from the tribes living frequently only from ten to 30 minutes' walk from the river bank. From Leopoldville to Bomba cases of sleeping sickness were present in practically every town visited and the percentage of trypanosome-infected individuals among the general population was high. After Basoko, and up to the Falls, only imported cases (two exceptions) of sleeping sickness were seen in a few of the towns and no trypanosomes were found in the general population. The inland towns which were examined showed a much smaller percentage of trypanosome infections than did the corresponding riverine towns, and it was exceedingly rare to see a case of sleeping sickness. Along the rivers the spread of the disease

had been much assisted by the practice of taking large bodies of natives, soldiers, and labourers from one part of the Free State to another. It was only a few months since the transportation of cases of sleeping sickness on State steamers had been forbidden. Previously affected individuals had been allowed to return to die in their perhaps uninfected villages. Declared cases of sleeping sickness were easily recognised but germs might remain in the blood for months, even years, and the patient remain in apparently perfect health. The importance of the early recognition of such cases was obvious and it had long been one of the chief aims of the members of the expedition to devise some easy and fairly accurate method of detecting the presence of the trypanosomes. They believed that in "cervical gland palpation" they had now an excellent clinical method of detecting an infected person. Work in this direction was far from complete but the evidence indicated that no intending labourer or recruit coming from an area in which sleeping sickness existed should be accepted if he were found on examination, other causes being absent, to have fairly numerous, moderately enlarged cervical glands. The chief advantages of this method of examination were, of course, the ease and rapidity with which it could be applied and the fact that very little, or no, medical training was necessary in the examiner. The tsetse fly was incessantly present from Stanley Pool to Basoko and frequently came on board the steamer while in mid-stream, 300 or 400 yards from land. After Basoko there were very few flies. Where there were many tsetse flies there was much sleeping sickness and where these flies were scanty cases were rarely seen.

The New Chairman of the Hospitals Committee.

Mr. John Utting, J.P., a medical member of the city council, has been elected to the important post of chairman of the port sanitary and hospitals committee of the corporation. It is only right that, where possible, a member of the medical profession should be asked to preside over a committee which is so largely responsible for the health of the community, because if the port gets infected the trade practically becomes paralysed.

Liverpool and the Lancashire Asylums Board: Proposed Asylum on the Villa Plan.

The city council, which sends eight members to the Lancashire asylums board, has arranged so to divide its representatives among the subcommittees of the five asylums as to secure all-round representation. Liverpool has unfortunately to maintain pauper lunatics wherever it can find accommodation for them and it thus happens that its representatives need to visit all the asylums, a work calling for a division of labour. So serious are the charges upon Liverpool with respect to lunatics that it has been thought desirable to consider whether the city should not dissociate itself from the asylums board and build an asylum of its own, but at present there is a feeling that in the existing condition of the money market it would be undesirable to add to the capital account of the municipality. The Commissioners in Lunacy have approved the plans prepared on behalf of the Lancashire asylums board by the county architect for the proposed asylum at Whalley, to be erected on the detached "villa" system, as opposed to the prevalent single-block style. The advantage of the system does not lie in first cost or directly in administration; economy occurs through the grading of patients and the consequently shortened period of detention. The Whalley Asylum, if approved by the Home Secretary, will be the sixth owned by the Lancashire asylums board, the other five being at Lancaster, Rainhill, Prestwich, Whittingham, and Winwick respectively.

University of Liverpool: Financial Position.

The first annual meeting of the Council of the University of Liverpool took place on Nov. 26th at the town-hall. The Lord Mayor presided at the commencement of the proceedings and tendered a hearty welcome to those who met that day in such a desirable cause as that of the work of the University; it was good that they should meet in the town-hall, for the University was year by year becoming an important feature of the city. The chair was subsequently taken by the Chancellor (the Earl of Derby, K.G.) who delivered a complimentary address on the relations subsisting between the University and the city council. The treasurer (Mr. H. R. Rathbone) presented the first annual statement of accounts. The expenditure from Sept. 30th, 1903, to Sept. 30th, 1904, was shown to be £35,053, including £15,191 paid for salaries, £6121 proportion of fees paid to lecturers, £1338 grants to professors for apparatus and material, and £2505 technical fund grants. The receipts included £9179 from investments, £1940 from the sustentation fund, £10,704 fees from students, £4500 from the city council of Liverpool, £4000 from the Government, and £2505 from technical funds. There was a debit balance of £1109. The balance sheet showed that the total donations to date amounted to £323,668. The adverse balance on the general fund had been reduced from £19,960 to £5564. The University had not yet been in receipt to the full extent of the generous help of the city and neighbouring towns and counties, one half of the grants of which had only been received as yet.

Hospital Saturday Fund.

The annual report of this fund showed the largest advance in any one year since 1873, the total collection from all sources (including £646 4*s*. 5*d*. from the ladies' street collection) being £9007 16*s*. 4*d*., as against £8062 18*s*. 1*d*. in 1903, an increase of £944 18*s*. 3*d*. The workshop or general fund was still moving upwards, £8006 14*s*. 3*d*. being subscribed, which was £603 16*s*. 5*d*. more than last year. The ladies' street collection also showed a very creditable improvement. The total expenses only amounted to £532 10*s*. 4*d*., or about 5¼ per cent., against 6¼ per cent. in 1903. The amount distributed to the hospitals in connexion with the Hospital Sunday Fund was £14,850, or £250 more than last year. Of this the Hospital Saturday Fund's share was £8363 2*s*. The total number of collections was 3610; boxes, 2385; cards and lists, 1973; and firms using own methods, 152. The total in 1903 was 3423.

Proposed Memorial to the late Sir William Mitchell Banks.

By the cordial consent of the Lord Mayor a public meeting will be held at the town-hall on Nov. 29th for the purpose of considering the desirability of establishing some permanent memorial to commemorate the name and services of the late Sir William Mitchell Banks. The form of the memorial will be determined at the meeting.

Nov. 28th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

The University of Glasgow.

ON Nov. 22nd the Right Hon. George Wyndham, M.P., Chief Secretary for Ireland, was formally installed as Rector of the University of Glasgow. As the company on such occasions is usually very large, the Students' Representative Council, which had charge of the arrangements, selected the building known as Hengler's Hall which can accommodate about 2000 people. The corporation of the city was represented by the Lord Provost, Sir John Ure Primrose, and several members of the town council. There were also present on the platform many well-known public men, among whom were the Parliamentary representative, the Right Hon. James A. Campbell, LL.D., Mr. A. Bonar Law, M.P., Mr. John Wilson, M.P., Mr. A. Cross, M.P., and Mr. Parker Smith, M.P. Principal Story opened the proceedings with prayer, after which the Rector, having signed the required oath, proceeded to deliver his inaugural address, taking as his subject the Development of the State. The discourse was listened to with great attention and at its close, on the motion of the president of the Students' Representative Council, an enthusiastic vote of thanks was accorded to the Rector.

The Western Infirmary, Glasgow.

The thirtieth annual meeting of the subscribers of the Western Infirmary was held on Nov. 24th. The report showed that the number of patients treated during the past year was 28,142, of whom 22,010 were outdoor cases and 6132 were indoor. The average daily number of indoor patients was 437. In addition to the patients treated in the wards the resident staff numbered 245, making a daily average total of 682 persons resident in the infirmary. The average period of residence of each patient was 26 days. The cost of each bed fully occupied was £70 2*s*. 10*d*. and the average cost per patient treated was £5 0*s*. 1¼*d*. The demand for accommodation during the present year has not been lessened. Some time ago an appeal was made for funds to supply the necessary extension. Plans were prepared for providing four pavilions at an estimated cost of £20,000 each. The subscriptions received and promised in response to this appeal amounted to £30,627 and a new wing involving an expenditure of over

£30,000 is in course of erection. The managers of the infirmary appeal for increased support in the form of legacies, donations, and subscriptions.

Nov. 28th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Public Health of Dublin.

The annual report of Sir Charles Cameron upon the state of public health and the sanitary work performed in Dublin during the year 1903 was published on Nov. 27th. The death-rate—although the lowest recorded in the city since accurate registration of deaths commenced—proved still lamentably high—namely, 22·8 per 1000 of the population. Of the 9047 deaths no fewer than 3595, or 39·7 per cent., took place in workhouses, hospitals, lunatic asylums, and prisons. There were 760 deaths in the North Dublin Union Workhouse, 805 in that of South Dublin, and 38 in Rathdown Union Workhouse. These figures compare very unfavourably with the returns from large English towns, where only 18 per cent. of the deaths occur in public institutions. There are other significant statements in the report pointing to the cause of the high mortality but as usual the tenement-house system stands in fatal pre-eminence. In the tabular forms contained in the report this so-called house accommodation is divided into classes. There are 25,764 houses in all, occupied by 51,851 families, with tenement dwellings of one-room numbering 21,747. In 4392 cases three persons occupied the same room, in 3384 four persons, in 2302 five, in 1477 six, in 797 seven, in 382 eight, in 145 nine, and in 47 ten. It would seem that it is from those dens that the unfortunates come who maintain the terrible rate of mortality in the public institutions. The city is dirty but not more dirty than many others. The Liffey, though malodorous at low tide, has never been known to affect the death-rate along its shores, the facts tending rather in the opposite direction. The water-supply from the Wicklow hills is admirable and reaches at high pressure the tops of all the houses. On the other hand, where or in what city can such a record of tenements be found?

Newtownards Sewerage Scheme.

NEWTOWNARDS, a thriving Irish town on Strangford Lough, finds itself in an awkward plight in trying to comply with the suggestion of the Local Government Board that proper sewers should be provided for the town. In order to have a sewerage scheme a water-supply is also necessary, but the difficulty is a financial one as the authorities are only allowed by the terms of the Towns Improvement Act to borrow twice the amount of their valuation. The town is valued at £14,000, so that £28,000 is the limit to which its borrowing powers extend. Its outstanding loans amount to £10,452 and, in addition to what was wanted for water, there would only remain the totally inadequate sum of £239 for sewerage, and even that would be wanted for other things, so that the urban council had practically nothing left. In the circumstances it has decided to appoint a committee to look into the whole subject and to report to a special meeting of the council.

Belfast Workhouse Convalescent Home.

About 70 children from the Belfast workhouse infirmary are to be accommodated, through the kindness of Colonel M'Cance (a guardian), at Donore House, near Antrim, while the children's infirmary is being rebuilt.

Ulster Medical Society.

The President of the Ulster Medical Society (Dr. W. Calwell) entertained the members at an "At Home" in the Medical Institute, Belfast, on Nov. 17th, when there was a large attendance and through the hospitality and courtesy of Dr. Calwell a very pleasant evening was spent.

The Small-pox Epidemic in Belfast.

I regret to report that the epidemic of small-pox in Belfast still continues and as it is thought that cases are being concealed the authorities are experiencing much difficulty in dealing with it. A prominent member and local leader of the Salvation Army died last week. Great apathy is being shown as to revaccination and the antivaccinationists have held meetings in opposition to this effective precaution, one of the powerful local supporters being a labour leader who is aspiring to Parliamentary honours and is a member of the city corporation.

Nov. 29th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Treatment of Tetanus.

AT a meeting of the Société Médicale des Hôpitaux held on Nov. 4th M. Tixier described a case observed by M. Jeanselme and himself. It was a severe attack of acute tetanus which terminated in recovery at the end of 15 days and the treatment consisted in the simultaneous use of antitetanic serum (of which the patient received 1060 cubic centimetres) and of chloral in large doses amounting to 234 grammes in 19 days. M. Tixier was inclined to believe that the good result was principally due to the injections of antitetanic serum. There were two attacks of scarlatiniform erythema during the injections, one of them occurring seven days after the first injection and the other a week later.

Estlander's Operation for Purulent Pleurisy.

At a meeting of the Surgical Society held on Nov. 9th M. Bazy described the case of a female patient, 35 years of age, who suffered from pleurisy subsequently to an attack of tuberculous broncho-pneumonia. After the making of several punctures which proved to be insufficient he performed Estlander's operation. He found a cavity filled with pus and the lung retracted and covered with a layer of flakes of lymph (*fongosités*), some of which he removed. The hæmorrhage was considerable. There was marked pyrexia for a month, after which an improvement set in and after the lapse of several months there remained only an open wound at the bottom of which the lung was to be seen covered with flakes of lymph. The cavity was washed out every day to clear it of pus, which, moreover, contained Koch's bacilli. Some months later the cavity diminished in size and Koch's bacilli disappeared from the pus. At the end of a year the fistulous opening healed. For the last five months the patient had been in good health and auscultation showed that the permeability of the lung was re-established.

Vital Statistics.

The enumeration of the French population in 1903 has given the following results as shown in the official statistics. The number of births was lower in 1903 than in 1902, the difference being 18,686. This diminution of the birth-rate was general, extending to 73 departments. In 14 departments, on the other hand, there were more births in 1903 than in 1902. Notwithstanding this general lowering of the birth-rate a comparison of the births and deaths shows an excess of 73,106 births. This is due to the decreasing mortality, for the deaths in 1903 were fewer by 7828 than in 1902. The decline in the death-rate is, however, less general than the decline in the birth-rate and extends to only about one half of the departments—namely, to 47, as compared with 40 in which the death-rate has increased. The department of the Seine is at the head of those in which the death-rate has declined.

An Appointment.

Dr. Reclus, professor of operative surgery in the Paris Faculty of Medicine, has been appointed at his own request professor of clinical surgery in succession to the late lamented Professor Tillaux.

The Production of Vaccine Material.

The Act of 1902, which makes vaccination compulsory throughout France, has considerably modified the system of vaccination hitherto in force. The departments have been instructed either to establish vaccine institutes (*instituts vaccinogènes*) or to obtain supplies of lymph in tubes from recognised institutes. The Academy of Medicine which distributed tubes of lymph free of charge, receiving for this purpose an annual allowance of 20,000 francs, is therefore gradually reducing these supplies and the establishment under its control will ultimately become a vaccine institute of a special kind having certain powers over the departmental institutes and the authorised private institutes. It will continue to vaccinate free of charge on its own premises so as to have material available for study. With a view to the new arrangements M. Kelsch has recently been travelling both in France and in some other European countries for the purpose of examining the systems followed in a variety of existing vaccine institutes. He has brought back a mass of memoranda and has compiled a very remarkable report which he read at a meeting of the Academy of Medicine held on Nov. 8th.

Invitation to British Physicians and Surgeons to Visit Paris.

A committee has just been formed for making preparations at Paris for a visit of British physicians and surgeons in return for that recently paid by their French colleagues to London. This committee, to which belong most of the Paris physicians and surgeons who have just visited London, held its first meeting last week and nominated as its president Professor Bouchard, member of the Institute. The date which will be suggested for the visit will be about the beginning of May, 1905, but it will not of course be settled definitely until a consultation has been held with the British committee. A subscription made among the members present at the meeting for defraying possible expenses has already produced 4500 francs.

Poisoning by Balloon Gas.

M. Barié and M. Brissay communicated a paper on the above subject to the Hospitals Medical Society on Nov. 11th. The case was that of a balloonist who while decanting the hydrogen from one balloon to another had to stand over the point of exit of the gas. He felt unwell at the time and during the night was attacked with continuous vomiting, accompanied by acute abdominal pain, and, finally, he passed almost black urine. His skin, too, assumed a general reddish-brown colour. Despite injections of serum, the use of ice both internally and externally, theobromine, a milk diet, and inhalations of oxygen death supervened on the fourth day accompanied by intense weakness and total suppression of urine. It is well known that ordinary balloon gas consists of impure hydrogen and other toxic gases, such as arseniuretted hydrogen, antimoniuretted hydrogen, and seleniuretted hydrogen, having their rise from the impure sulphuric acid which is used to prepare the gas. The second of these gases is but slightly poisonous and the last mentioned is very easily decomposed. But arseniuretted hydrogen is *par excellence* a hæmolytic and must be held to be the fatal agent in this case. Chemical examination, too, showed indisputably the presence of arsenic in the blood of the patient.

Nov. 29th.

SWITZERLAND.

(FROM OUR OWN CORRESPONDENT.)

Provident Societies for Medical Practitioners.

ALTHOUGH the great majority of medical men in Switzerland are insured both as regards accident and death, yet sad stories are heard every now and then either of the sudden death of a medical man leaving a widow or orphans unprovided for or of a medical man himself becoming incapacitated for work by chronic illness and thereby being left without means. In order to meet such cases as far as possible a provident society for Swiss medical men was founded four years ago on the following basis. Any Swiss medical man in good health and under 40 years of age may after medical examination join the society. He pays to its funds an entrance fee varying from £1 to £1 12*s.* according to his age and a monthly sum of 8*s.* In case of his becoming incapacitated for work owing to illness (not as the result of an accident) he receives from the twentieth day onward and for an unlimited time a daily sum of 8*s.* This amounts to an annuity of £146. On June 30th, 1903, the number of active members was 243 and as most of the members are young men the claims on the fund have not been considerable, so that it has in four years been able to accumulate a capital of £3130. Another provident society is the Swiss Medical Benevolent Fund (Hülfskasse für Schweizer Aerzte), which was founded many years ago and has during the last 20 years distributed over £4000 to medical men or their families when in financial distress. Every year in the spring the secretary sends the accounts for the previous year together with a subscription card to each of the 2109 members of the medical profession. So far the medical men have contributed about 2*s.* 6*d.* per head per annum to the fund. As the annual subscriptions were falling off a special appeal was made in 1902. The result was most satisfactory, as the subscriptions from medical men rose from £240 in 1902 to £326 in 1903, an increase of over 30 per cent. Donations were also received from subscribers not belonging to the medical profession and from various societies, so that together with the interest on the accumulated capital of £5200 last year's income was £846 and the expenditure was £384, leaving £262 to carry forward. As the secretary receives no salary the expenses amount to only £30 for printing, postage, &c. The financial state of this fund, which last year assisted two medical men and 20 widows, may be considered as satisfactory.

Zürich, Nov. 22nd.

Obituary.

CHARLES DOUGLAS FERGUSSON PHILLIPS, M.D. MAR. COLL. ABERD., F.R.C.S. EDIN., F.R.S. EDIN.

Dr. Charles Douglas Fergusson Phillips, who died on Nov. 13th at the age of 74 years, was the son of Captain Robert Phillips of the 40th Regiment, a distinguished Peninsular and Waterloo officer. Dr. Phillips, who graduated as M.D., Marischal College, in the University of Aberdeen in the year 1859, started practice in Manchester but in 1867 he removed to London. Here he soon obtained a large practice but in 1878, owing to an injury received in a railway accident at Nine Elms Junction, he became paralysed and had to retire. He brought an action for damages against the company for £20,000 and after a prolonged trial and two appeals he was eventually awarded £15,000 damages on the ground that for some years previously to his accident his professional income had amounted to between £15,000 and £20,000 per annum. In 1883 he again commenced to practise but retired from work last year. Dr. Phillips was much interested in the study of materia medica and therapeutics and was for many years lecturer in these subjects at the Westminster Hospital Medical School and examiner in the same at the Universities of Edinburgh, Glasgow, and Aberdeen. In 1892 he published a book entitled "Materia Medica, Pharmacology, and Therapeutics," a third edition of which was issued in 1903. Only a few months before his death he was invited to stand as Parliamentary candidate in the Conservative interest for the Universities of Glasgow and Aberdeen, an honour which owing to his advanced age he declined.

Medical News.

UNIVERSITY OF LONDON.—At examinations held recently the following candidates satisfied the examiners:—

M.B., B.S. EXAMINATION.

Honours.—‡Joseph Ebenezer Adams, St. Thomas's Hospital; *†‡§‖Sidney Arthur Boyd, Charing Cross Hospital; *†‡‖¶Harold Benjamin Day, King's College; *†‡George Johnson Langley, St. Thomas's Hospital; ¶Arnold Leeming, Guy's Hospital; †‡‖Harold Turley Mant, University College; †George Ernest Peachell, St. Mary's Hospital; †Harold Pritchard, St. Bartholomew's Hospital; ‖Frederick Rogerson, Guy's Hospital; §William Sidney Sweet, University College; ‡‖¶Frank Edward Taylor, King's College and University of Leeds; †‡John Herbert Wells, St. Mary's Hospital; and §Clifford Sidney White, University College.

* Bracketed equal for the University Medal.
† Distinguished in Medicine.
‡ Distinguished in Pathology.
§ Distinguished in Forensic Medicine and Hygiene.
‖ Distinguished in Surgery.
¶ Distinguished in Midwifery and Diseases of Women.

Pass.—Edwin Lancelot Ash, St. Mary's Hospital; William Bain, Middlesex Hospital; Seymour Gilbert Barling, University of Birmingham; Lacey Bathurst and John Henry Bletsoe, St. Thomas's Hospital; Elizabeth Bolton, London (Royal Free Hospital) School of Medicine for Women; Leonard Herbert Henry Boys, Middlesex Hospital; James Frederick Edmund Bridger, St. Mary's Hospital; Walter Briggs, Victoria University; Hubert Chitty, University College; Harry Finzel, St. Bartholomew's Hospital; Charles Montague Heanley, St. George's Hospital; Spencer Hunt, St. Bartholomew's Hospital; Hamilton Irving, Victoria University and Manchester Royal Infirmary; Eleanor Gladys Kensington, London (Royal Free Hospital) School of Medicine for Women; Harold Cruickshank Lees, St. Mary's Hospital; James Huntly Legge, B.Sc., University of Leeds; Lytton Pelham Maitland, Charing Cross Hospital; William Norman May, Guy's Hospital; Daniel Joseph Mulholland, University of Liverpool and Royal Infirmary; Helen Nora Payne, London (Royal Free Hospital) School of Medicine for Women; Edward George Perodeau, University College; John McFarlane William Pollard, Guy's Hospital; John Maurice Bisdee Rahilly, St. Mary's Hospital; Gilbert William Rogers, St. George's Hospital and University College, Cardiff; Richard Kenneth Shepherd, Charing Cross Hospital and University College, Cardiff; Charles Duncan Soutter, University of Birmingham and General and Queen's Hospitals; Ethel Maud Stacy, London (Royal Free Hospital) School of Medicine for Women; James Eaton Stephens, St. Mary's Hospital; George Stafford Ward and Leonard Warren, London Hospital; Charles Morley Wenyon, B.Sc., Guy's Hospital; Thomas John Williams, University of Liverpool and Royal Infirmary; and Kenrick Stanton Wise, B.Sc., St. Bartholomew's Hospital.

The following candidates have passed in one of the two groups of subjects:—

Group I.—George Cuthbert Adeney, St. Thomas's Hospital; William Brown Clark, King's College; Alfred Coleridge, King's College and University College, Bristol; Reginald John Hands Cox, St. Thomas's Hospital; Joseph William Evans, Charing Cross Hospital and University College, Cardiff; Alfred Wyatt Hooker, St. Thomas's Hospital; Thomas Henry Jones, King's College; Charles Hugh Latham, Ernest Edward Mossop, and John Noel Sergeant, St. Thomas's Hospital; David Lindley Sewell, Victoria University; Ethel Maude Townend, London (Royal Free Hospital) School of Medicine for Women; and Edwin Robert Wheeler, King's College.

Group II.—William Henry Barnett, St. Bartholomew's Hospital; Desborough Brodie, St. George's Hospital; John Harmer Drew, St. Thomas's Hospital; Montagu David Eder, B.Sc., St. Bartholomew's Hospital; William Harold Arthur Elliott, University of Leeds; Evan Evans, Guy's Hospital; Harry Farncombe, University College; Richard Felton, Guy's Hospital; Ruby Ellen Glanville, London (Royal Free Hospital) School of Medicine for Women; Arthur Augustus Russell Green, University of Birmingham; Horace Bryden Hill, St. Bartholomew's Hospital; Charles Edward Iles, University of Birmingham; Ambrose Hilton John, St. Bartholomew's Hospital; Bernard Watson Jones, University of Birmingham; Harold Albert Kisch, St. Thomas's Hospital; Herbert Love, St. Bartholomew's Hospital; Wilfrid Ombler Meek, St. Thomas's Hospital and Victoria University; Conwy Llewellyn Morgan, St. Thomas's Hospital; John Hobart Nixon, St. Mary's Hospital; Thomas Phare Puddicombe, St. Thomas's Hospital; Ida Russell Shields, London (Royal Free Hospital) School of Medicine for Women; William Herbert Smailes, University of Leeds; George Alick Soltau, London Hospital; Alice Maude Sorabji and Edith Waine Turner Watts, London (Royal Free Hospital) School of Medicine for Women; David Wilson, St. Thomas's Hospital; and Harold William Wilson, St. Bartholomew's Hospital.

B.S. EXAMINATION.

Honours.—Thomas Crisp English, St. George's Hospital; Archibald Montague H. Gray, University College; Ernest W. H. Groves, M.D., B.Sc., St. Bartholomew's Hospital; and Noel Everard Waterfield (University medal), St. Bartholomew's Hospital.

Pass.—Oswald Lacy Addison and William Appleyard, University College; Oliver Francis Haynes Atkey, King's College; George Ernest Aubrey, St. Bartholomew's Hospital; William Blair Bell, M.D., King's College; Alice Marian Benham and Victoria Evelyn May Bennett, London (Royal Free Hospital) School of Medicine for Women and University College, Cardiff; Ernest William Charles Bradfield, St. Mary's Hospital; Helen Chambers, London (Royal Free Hospital) School of Medicine for Women; James Alane Coupland, University of Leeds; Joseph Anthony Ferrière, University College; Mabel Emily Gates, London (Royal Free Hospital) School of Medicine for Women; Herbert Myer Goldstein, Guy's Hospital; Frank R. Greenwood, M.D., University of Birmingham; Helen Beatrice Hanson, M.D., London (Royal Free Hospital) School of Medicine for Women; Percival George Harvey, St. Bartholomew's Hospital; Arthur Falconer Hayden, St. Mary's Hospital; Charles Dyson Holdsworth, University College; Margaret Hudson, B.A., London (Royal Free Hospital) School of Medicine for Women; Frederic Wood Jones, B.Sc., London Hospital; Kate Knowles, London (Royal Free Hospital) School of Medicine for Women; Ernest Charles Mackay, St. Bartholomew's Hospital; Daniel Leigh Morgan, Guy's Hospital; Edgar Coningsby Myott, Guy's Hospital and Victoria University; William Sydney Page, St. Mary's Hospital; Francis Baldwin Pinniger, Charing Cross Hospital; Kate Anne Platt, London (Royal Free Hospital) School of Medicine for Women; Arthur Robert George Pocock, M.D., University College; George Ernest Waugh, M.D., University College and University of Cambridge; Ada Miles Whitlock, London (Royal Free Hospital) School of Medicine for Women; John Thomas Williams, M.D., University College; Edward Allan Wilson, University of Leeds; and Ivy Evelyn Woodward, London (Royal Free Hospital) School of Medicine for Women.

N.B.—This list, published for the convenience of candidates, is issued subject to its approval by the Senate.

UNIVERSITY OF OXFORD.—The following have passed the examinations for the Diploma in Public Health:—

Robert Donald and David Thomas Rocyn Jones.

ROYAL COLLEGE OF SURGEONS IN IRELAND: FELLOWSHIP EXAMINATION.—The following candidates having passed the necessary examination have been admitted Fellows of the College:—

K. B. Barnett, B.Ch., &c., Royal University, Ireland, Captain, R.A.M.C.; Miss S. H. Commissariat, L.M. & S., Bombay University (Bombay); and R. Glenny, L.R.C.S.I. &c. (Dublin).

The following passed the primary part of the examination:—

J. Armstrong, B.Ch., &c., Royal University, Ireland (Ballymena); M. R. J. Hayes, student, R.C.P. & S.I. (Tipperary); V. J. M'Allister, student, Royal University, Ireland (Dublin); P. T. M'Ardle, student, Royal University, Ireland (Dublin); R. V. Slattery, student, Royal University, Ireland (Tralee).

TRINITY COLLEGE, DUBLIN.—At the final examination in medicine in Michaelmas term the following were successful:—

Section B.—Robert A. Askins and Henry H. A. Emerson, George R. Nesbitt, John W. Burns, Francis J. Usher, Charles E. C. Williams, William G. Harnett, Henry R. White, James M. Harold, John Murdoch, and Hercules J. Knox.

ROYAL EAR HOSPITAL.—Lady Cheylesmore, wife of the Mayor of Westminster, has consented to open the new building of the Royal Ear Hospital, recently erected at 42 and 43, Dean-street, Soho, on Monday, Dec. 12th, at 3 P.M.

LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN.—The following scholarships and prizes have been awarded at the London (Royal Free Hospital) School of Medicine for Women: St. Dunstan's medical exhibition of £60 for five years to M. Muncy; the school scholarship of £30 to E. M. Morris; two Mackey prizes of £20 each to E. Griffiths and E. H. Lepper; and the Fanny Butler scholarship of £14 10*s.* to G. M. Stagg.

CHARING CROSS HOSPITAL.—The distribution of prizes awarded during the winter session 1903-04 and the summer session 1904 to the successful students of the Charing Cross Hospital Medical School took place in the school buildings in Chandos-street, Strand. Sir Squire Bancroft was in the chair. The dean of the school, Mr. H. F. Waterhouse, first read his report, in which he stated that the new biological laboratory and physical laboratory had proved of great benefit to the school. The new surgical block was completed except that the operating theatres were waiting for furnishing and fittings, and it was hoped that the block might be opened very early next year. Dr. J. Mitchell Bruce had been appointed consulting physician to the hospital and Dr. F. W. Mott had been made physician with the full complement of beds at his disposal for clinical teaching. The number of new students who had joined the school was 75; there were at present 227 students in attendance and that number was very likely to be increased largely in the near future when the removal of King's College Hospital from the neighbourhood of Charing Cross was accomplished. After presenting the prizes Sir Squire Bancroft gave a short address in which he offered a few words of sympathy and encouragement to the students. He bade them remember that they started with what was the best stock-in-trade for any business—namely, possession of youth and hope—youth was a treasure that was priceless and inestimable and hope sprang eternal in the human breast. He trusted that they would also be ready when opportunity knocked at their door and for his own part he believed that it called at everyone's house. He concluded by urging them to preserve a cheerful mien and told a story of a rebuke administered to a young medical man by an old practitioner who begged him to brighten up lest he should be mistaken for the undertaker. The company then separated for an inspection of the school premises.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

COLE, F. HOBILL, M.B., Ch.B. Melb., has been appointed to the Honorary Medical Staff of the Children's Hospital, Victoria, Australia.

COOKSON, REGINALD GEORGE, L.R.C.P. Lond., has been appointed Government Medical Officer and Vaccinator at Temora, New South Wales, Australia.

DAWES, R. ST. MARK, L.R.C.P., M.R.C.S. Eng., has been appointed to attend the destitute poor and aborigines at Gawler South, South Australia.

DEVINE, HENRY, M.R.C.S., L.R.C.P. Lond., has been appointed Assistant Medical Officer at the Wakefield Asylum.

GOODE, ARTHUR, M.B., B.S. Adel., has been appointed to attend the destitute poor and aborigines at Ferowie, Wonna, and Whyte, South Australia.

GRIEVES, THOMAS ARTHUR, L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Government Medical Officer and Vaccinator at Burrags, New South Wales, Australia.

GROVES, ERNEST W. HEY, M.D., B.S., B.Sc., Lond., has been appointed Demonstrator of Anatomy at University College, Bristol.

HENDERSON, JOHN LESLIE, M.B., B.S. Melb., has been appointed Public Vaccinator to the Eastern District of Victoria, Australia.

JUTTNER, F. J. E., M.B., Ch.B. Melb., has been appointed to attend the destitute poor and aborigines at Tanunda, South Australia.

MEREDITH, JOHN, M.D., L.R.C.S. Edin., has been re-appointed Medical Officer of Health of Wellington (Somerset).

MURSELL, HENRY TEMPLE, M.B., M.C., F.R.C.S. Edin., has been appointed Honorary Assistant Surgeon to the Johannesburg Hospital.

SAVILL, AGNES F., M.D. Glasg., M.R.C.P. Irel., has been appointed Honorary Assistant Physician to St. John's Hospital for Diseases of the Skin, Leicester-square.

THOMSON, WILLIAM TRAILL, M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Warneford Hospital, Leamington.

TOVEY, ARTHUR, M.R.C.S., L.R.C.P. Lond., has been appointed Clinical Assistant at St. John's Hospital for Diseases of the Skin, Leicester-square.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BETHLEM HOSPITAL.—Two Resident House Physicians, unmarried, for six months. Honorarium at rate of £25 each per quarter, with board, residence, and washing.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—Assistant Surgeon.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Senior House Surgeon. Salary £85 per annum, with board and residence.

BURNLEY, VICTORIA HOSPITAL FOR BURNLEY AND DISTRICT.—Resident Medical Officer. Salary £100, with residence, board, and washing.

COUNTY OF LONDON, LONDON COUNTY COUNCIL.—Assistant Medical Officer. Salary £500 a year, rising to £800 a year.

CROYDON GENERAL HOSPITAL.—Medical Officer.

EXETER, ROYAL DEVON AND EXETER HOSPITAL.—Assistant House Surgeon, unmarried. Salary £60 per annum, with board, lodging, and washing.

GLOUCESTER GENERAL INFIRMARY AND THE GLOUCESTERSHIRE EYE INSTITUTION.—Assistant House Surgeoncy for six months. Salary at rate of £30 per annum, with board, residence, and washing.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—Resident Medical Superintendent. Salary 100 guineas per annum, with board and residence.

LEEDS, HOSPITAL FOR WOMEN AND CHILDREN.—Resident House Surgeon for six months. Salary at rate of £80 per annum, with board.

LONDON HOSPITAL, Whitechapel, E.—Medical Registrar. Salary £100 per annum.

LONDON TEMPERANCE HOSPITAL.—Assistant Resident Medical Officer for six months. Honorarium at rate of 50 guineas per annum, with board, lodging, and washing.

MANCHESTER, ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—Medical Officer. Salary £60 per annum, with board and residence.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House Surgeon for six months. Salary £60 per annum and board.

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—Assistant Surgeon.

MIDDLESEX COUNTY ASYLUM, Upper Tooting, London, S.W.—Assistant Medical Officer.

NEW ZEALAND, UNIVERSITY OF OTAGO.—Professor of Physiology. Salary £600, with fees.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House Physician. Also Assistant House Surgeon. Salary £100, with board, lodging, and washing in each case.

ROYAL FREE HOSPITAL, Gray's Inn-road, W.C.—Assistant Anæsthetist, also Clinical Assistants (females), tenable for six months.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—Assistant House Surgeon for six months, renewable. Salary at rate of £50 per annum, with board and residence.

STIRLING DISTRICT ASYLUM, Larbert, N.B.—Assistant Medical Officer. Salary £150, with board, &c.

STOCKPORT INFIRMARY.—Junior Assistant House Surgeon for six months. Salary £40 per annum, with board, washing, and residence.

SUSSEX COUNTY HOSPITAL.—Second House Surgeon, unmarried. Salary £60 per annum, with board and residence.

TOTTENHAM HOSPITAL, London, N.—Assistant Physician. Honorarium 20 guineas per annum. Also Honorary Anæsthetist and Honorary Radiographer.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY.—Resident House Surgeon. Salary £120, with board and lodging.

Births, Marriages, and Deaths.

BIRTHS.

ANTHONY.—On Nov. 24th, at Ramsbury, Hungerford, Berks, the wife of F. Anthony, M.R.C.S., L.R.C.P., of a daughter.

CHEATLE.—On Nov. 27th, at Harley-street, W., the wife of G. Lenthal Cheatle, C.B., F.R.C.S., of a daughter.

CLARKE.—On Nov. 25th, at Penrhyn, Stourbridge, the wife of H. H. R. Clarke, M.R.C.S., L.R.C.P., of a daughter.

DICKSON.—On Nov. 24th, at Scarsdale-villas, Kensington, the wife of T. H. Dickson, M.A., M.B., of a son.

GAULD.—On Nov. 29th, at Elvington, York, the wife of G. O. Gauld, M.B., Ch.B., of a son.

MARRIAGES.

HENDERSON—WELLS.—On Nov. 5th, at St. George's Church, Agra, United Provinces, India, Major Selby H. Henderson, I.M.S., to Ruby Mildred, second daughter of Walter F. Wells, I.C.S.

ONSLOW—FRANKLIN.—On Nov. 9th, at Christ's Church, Simla, Captain Cranley Charlton Onslow, Bedfordshire Regiment, to Sydney Alice Hastings, younger daughter of Surgeon-General Sir Benjamin Franklin, K.C.I.E., K.H.P., Director-General, Indian Medical Service.

DEATHS.

BATEMAN.—On Nov. 24th, at Whitchurch, Oxon, Francis Bateman, M.B. Lond., M.R.C.S., L.R.C.P., aged 60 years.

FREEMAN.—On Nov. 28th, suddenly, at his residence, Villa delle Palme, San Remo, Alfred John Freeman, M.D., in his 61st year.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

THE COST OF A MOTOR-CAR.

To the Editors of THE LANCET.

SIRS,—It may interest some of your readers to hear the result of my experience and the actual expenses which I have incurred during the first twelvemonth (October, 1903-04) of running a 10 h.p. air-cooled Lanchester carriage. I will begin by stating that I had never owned or driven a car before and that I knew absolutely nothing about machinery. I have never required any skilled assistance and consider the Lanchester car most suitable for a medical man on account of its almost noiseless running, ease of adjustments, most reliable breaks, wonderful control in traffic, the ease and certainty of changing gears on hills, and its quiet but smart appearance. Any medical man contemplating the purchase of a car should read what A. B. Filsen Young says about the Lanchester car in the "Complete Motorist." I always drive myself and have driven 3132 miles during the year. I have never been stopped on my rounds, but when making long journeys of from 50 to 100 miles for pleasure I have occasionally had to adjust a new igniter spring, the work of a few seconds; and more particularly during the hottest days I had to wait about half an hour on account of my engines getting overheated, thereby, I imagine, getting an attenuated charge, causing my car gradually to slow down until it stopped. There was no difficulty in restarting when it had cooled a little. Fortunately I have never punctured my inner tube although I found a puncture through my outer cover which necessitated sending it away for repairs. My tyres are Michelin 870 by 90 millimetres. I have a detachable hood for front seats which I find very useful during wet weather. I have no pit but on two occasions I have had to get under my car (in the motor shed) to take up wear of clutch. The break has never had to be adjusted and I think will go some time longer without it. The intermediate and low speed gears occasionally require a few minutes' attention; this adjustment I can do from the front seat.

Below I schedule my expenses with remarks:—

	£	s.	d.
Wages. First four months I kept on my groom, his wages being higher than my present lad, who keeps the small garden in order and makes himself generally useful	42	15	0
Tyres. One pair new Michelin square treads for rear wheels £21 5 4			
New treads vulcanised on removals ... 5 18 0			
Repairs to one outer cover 0 11 6			
	27	14	10
Petrol. Carless, Capel, and Leonard, several gallons of which have been used for cleaning purposes ...	13	5	1
Renewals and spares, of which I have a good stock left	6	7	0
Lubricants, including a 42-gallon cask of cylinder oil, of which I have 30 left	6	0	1
Licences, one guinea of which I had to pay for the last three months of 1903	5	3	0
Number plates and tail lamp, will not be incurred again	3	10	0
Rubber hose for washing car	1	2	0
Carriage of various items	1	0	7
Sponges, chamois, brushes, cloths, emery paper, Japan black	1	2	6
Autocar	0	13	0
Washing clogs	0	10	6
Patcho. I find this most useful for stopping cuts ...	0	8	0
Total for one year	£109	11	7

I think the above compares very favourably with the upkeep of a horse and carriage, and it is almost unnecessary to add that one derives an enormous amount of pleasure from driving and visiting places that would not be within the reach of a horse and carriage.

I am, Sirs, yours faithfully,

Alverstoke, Hants, Nov. 28th, 1904. F. CRADDOCK PALMER.

EDUCATION OF THE BLIND AND DEAF.

AT a meeting of the North Staffordshire joint school authority recently held, the head master reported that there were 119 children on the books of the blind and deaf school. He also presented a valuable report as to the after-history of the boys trained in this institution. This stated that the statutory period in the blind school was 11 years. 11 boys had left after school periods ranging from one and three-quarters to six and a half years, or an average of four and a half years. Of these boys eight were employed at the workshops for the blind, one was engaged as a pianist, one had developed sufficient sight for ordinary employment, and one was epileptic and unable to work. 13 girls had left after school periods ranging from two months to seven years, or an average of two and a half years. Of these girls three were employed at the workshops for the blind, three had developed sufficient sight for ordinary occupations, two were in other institutions, and five were dead. These figures illustrated

very powerfully the need for, and the value of, workshops for the blind, both for the blind themselves and for the community at large. In the department for the deaf 11 boys had left after average school periods of five years. Of these boys eight were employed regularly and most of these were engaged in skilled occupations; one was mentally deficient, one was dead, and one could not be traced. Seven girls had left after average school periods of four and a half years and of these four were in regular employment, one was out of employment, and two could not be traced. Special difficulty was experienced by deaf girls in obtaining employment. In some cases difficulty was brought about by the fact that in mistaken kindness parents were inclined to place too generous a value upon their children's abilities and miscalculated their fitness and prospects. The hope for greater success in the future depended upon (1) the blind and deaf receiving their full term of instruction; (2) a reasonable aim on the part of parents and their loyal coöperation with the efforts of the institution; and (3) the continued operations of the after-care committee, in conjunction with the workshops for the blind and the Adult Blind and Deaf Society. Work with the blind and deaf was unique in its difficulties. Failure was courted when children were put to unsuitable work, and the best training miscarried when parents did not back it up intelligently in the house and in the working world.

A CASE FOR DIAGNOSIS.

To the Editors of THE LANCET.

SIRS,—A good many years having elapsed since I wrote to your valued paper an account of the birth of "Siamese twins" at Fort Saskatchewan, Alberta, in 1878, as near as I can remember, I take the liberty of, through your columns, bringing to notice a peculiar case now under my care, hoping that some of your correspondents are able and willing to give me their opinion on the case.

A widow, aged 52 years, suffering from diabetes mellitus applied to me for relief. The diabetes has entirely disappeared but she complains of a lump of about the size of a foetal head in the right hypochondriac region just under the mamma which has troubled her for over a year. She consulted several Spokane medical men. Some diagnosed a floating kidney; others could give no certain diagnosis. The tumour entirely disappears at times and is always more in evidence when her bowels are loose. As she is acting as my housekeeper I have frequent opportunities of examining her. Whenever the hand is applied she says it feels just as if a mustard plaster had been removed. Her appetite is good and she sleeps well. She has gained 20 pounds in weight since coming to me. I am of the opinion that her trouble is enlargement of the lower lobe of the liver. It is not painful enough to be an abscess or new growth, as it sometimes disappears for a day or two. There does not appear to be any inflammation nor is there any sign of pus being present. I must confess the case puzzles me. Having during hospital practice of a good many years had occasion to treat numerous hepatic troubles, I have the conceit to think I know a little about the liver, but this case troubles me and if any of your readers can advance a theory on the subject through your columns he will greatly oblige

A PUZZLED BROTHER PRACTITIONER.

Egypt, Lincoln County, Washington, Nov. 7th, 1904.

THE WEATHER AND THE STREETS.

MANY will remember Leech's delightful pictures in *Punch* which appeared under the above heading. If that great artist were alive now he would surely use his trenchant pencil in holding up to infamy the abominable custom of strewing salt upon the roadways in order to remove ice and snow. The Westminster municipal authorities are particularly prone to this practice and a most objectionable one it is. True, it removes both ice and snow but in their place it substitutes a horrible slush of a temperature of 0° F., which has a peculiar faculty for soaking through thick leather, even when well greased, and makes the feet of passers-by remarkably cold. Of its effect upon the feet and legs of horses, when the salt slush splashes up, we will say little, but it must be injurious. We admit that the task of rendering a slippery roadway feasible for traffic is not easy but a great deal might be done by a proper application of sand, granite chippings, or ashes. Also all owners of horses should be severely fined for sending out, as so many of them do, their horses without proper footgear or with the same loads as they are expected to draw in dry weather. Overloading is not punished half severely enough and we have many times seen wagons unable to get up Bedford-street, Strand, on account of too heavy a load and also on account of the greasy state of the wood. Why the Westminster authorities are so negligent we do not know but the ratepayers should make a protest against the use of salt and should insist upon the roadways being properly cleansed and sanded. Salt is objectionable for still another reason—namely, that a roadway saturated with brine never dries and so even when not slippery from frost is constantly so from greasy mud.

PERSISTENT ERROR IN DIAGNOSIS.

A CORRESPONDENT asks, "Is this old?":—Some years ago the inhabitants of S—— were moved to charity by the appearance in their streets of a cadaverous-looking man who turned the handle of a barrel-organ upon which was prominently displayed a large card bearing the pathetic statement: "Six months only to live. Wife and seven children to provide for." For several weeks the cadaverous one regularly raked in a harvest of coppers, then he disappeared. Four years later a townsman saw him in a distant city with the same organ and the same pathetic legend on it. "I saw you with that notice four years ago at S——," said the S—— man sternly, pointing to the "six months to live." "Very likely, Sir," said the cadaverous but evidently tough and leathery one, coolly; "I ain't responsible for my medical man's mistaking my complaint."

IN MOORISH SPAIN.

WE have received from Dr. J. Johnston of Bolton a reprint of some articles which originally appeared in the *Manchester Evening Chronicle* and the *Annandale Observer* upon Moorish Spain. Dr. Johnston was much struck, as no intelligent observer can fail to be, with Ronda, Cordova, Seville, and, above all, with Granada. The last-named city is certainly one of the most beautiful on the face of this earth, but even the Alhambra, exquisite as it is, must yield the palm for true dignity of architecture to the mosque at Cordova.

Monaco.—Permission to practise in the principality is granted solely by favour of the Prince of Monaco. Our correspondent can make an application through the Consul-General in London, 37, Conduit-street, Bond-street, W.

Subscriber should avail himself of the services of a professional valuer. His case, as he states it, is clearly one for compensation and his idea of the sum that he should receive appear to us to be modest.

G.P. will find that his view is to a great extent in accordance with that put forward by ourselves. The medical profession will probably be required during the ensuing year to discuss the matter.

Onyx.—It is preferable to avoid relations with a man possessing no legal qualifications. This is the advice that we always give in the circumstances.

Sanitas has asked an interesting question with which we will deal.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (5th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.).

TUESDAY (6th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.), Central London Throat and Ear (2 P.M.).

WEDNESDAY (7th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

THURSDAY (8th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square, (9.30 A.M.), Guy's (1.30 P.M.).

FRIDAY (9th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.), Central London Throat and Ear (2 P.M.).

SATURDAY (10th).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY (6th).—PATHOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Card Specimens will be shown by Dr. J. Fawcett. Papers:—Mr. Hopewell-Smith: Paget's Disease of the Gums.—Dr. W. R. S. Branson: Obliterating Arteritis.—Dr. R. S. Trevor: Intra-intestinal Cystic Swelling.—Dr. J. Fawcett: Dilated and Hypertrophied Œsophagus with Ulceration.

WEDNESDAY (7th).—OBSTETRICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 P.M. Specimens will be shown by Sir W. J. Sinclair, Dr. Lewers, Dr. Williamson, Mr. J. D. Malcolm. Short Communication:—Lieut.-Col. Sturmer: On a Case of Abdominal Gestation. Paper:—Dr. W. Tate: Three Cases of Intestinal Obstruction following Operations for Fibroid Tumour of the Uterus, with Special Reference to the Choice of Operation.

THURSDAY (8th).—BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square, W.).—8 P.M. Specimens will be shown by Dr. Macnaughton-Jones, Prof. J. Taylor, Dr. Rider, Dr. R. T. Smith, and Dr. B. Fenwick. Paper:—Mr. W. Alexander: Adenoma of the Endometrium (illustrated by microscopic sections, photographs, and lantern slides).

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY (20, Hanover-square, W.).—5 P.M. Paper:—Dr. N. H. Forbes (Tunbridge Wells): Observations on the Climate and Health Resorts of Scotland.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM (11, Chandos-street, Cavendish-square, W.).—8 P.M. Clinical Evening. Cases and Specimens will be shown by Mr. E. H. Jones, Mr. G. W. Roll, Mr. A. Lawson, Mr. A. H. Thompson, Mr. D. Marshall, Mr. J. H. Parsons, Mr. G. W. Thompson and Mr. E. Chatterton, Mr. G. Coates, and Mr. J. W. Tomlinson.

HARVEIAN SOCIETY OF LONDON (Stafford-rooms, Titchborne-street, Edgware-road, W.).—8.30 P.M. Discussion on the Treatment of Pulmonary Tuberculosis (opened by Dr. H. Mackenzie). Sir W. Broadbent, Bart., Dr. J. K. Fowler, Dr. S. Thompson, Dr. W. Ewart, Dr. C. Beale, Dr. Maguire, Dr. J. J. Perkins, Dr. J. E. Squire, and others will take part in the discussion.

FRIDAY (9th).—CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Papers:—Mr. C. Wallace: A Series of Intussusceptions in Children.—Mr. H. White: A Case of Acute Rheumatoid Arthritis.—Dr. B. Abrahams: On Arthritis Deformans and its Allies.

EPIDEMIOLOGICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—8.30 P.M. Lecture:—Dr. Nuttall: Ticks and Tick-transmitted Diseases.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (5th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. E. G. Little: Clinique. (Skin.) 5.15 P.M. Dr. G. F. Still: Rickets.

NORTH-EAST LONDON POST-GRADUATE COLLEGE (Tottenham Hospital, N.).—4.30 P.M. Dr. A. J. Whiting: Modern Methods in the Diagnosis of Stomach Disorders.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Baldwin: Practical Surgery.

ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM (City-road, E.C.).—2.30 P.M. Mr. F. Wallis: Lecture-Demonstration on Diseases of the Rectum.

TUESDAY (6th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. L. Williams: Clinique. (Medical.) 5.15 P.M. Mr. J. Hutchinson, jun.: The Surgical Treatment of Neuralgia.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Shuter: Anæsthetics.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury, W.C.).—3.30 P.M. Dr. Batten: Tumours of the Spinal Cord.

GLASGOW OPHTHALMIC INSTITUTION (126, West Regent-street).—8 P.M. Demonstration of Ophthalmoscopic Cases, Stereoscopic and other Photographs, Pathological Specimens, and Microscopic Slides. Clinical Evening. Demonstration of Patients: Diseases of the Lens and the Operations for Cataract. (Post-Graduate Course.)

WEDNESDAY (7th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. A. H. Tubby: Clinique. (Surgical.) 5.15 P.M. Mr. J. Bland-Sutton: The Surgery of the Uterus. 7.15 for 7.30 P.M. Annual Dinner at the Trocadero Restaurant, Piccadilly-circus, W.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Beddard: Practical Medicine.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. J. K. Fowler: The Treatment of Pneumothorax and Pyo-pneumothorax.

CENTRAL LONDON THROAT AND EAR HOSPITAL (Gray's Inn-road, W.C.).—5 P.M. Demonstration:—Dr. W. Wingrave: Ear.

ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM (City-road, E.C.).—10.30 A.M. Mr. L. Mummery: Clinical Demonstration in the Out-Patient Department.

THURSDAY (8th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.) 5.15 P.M. Dr. P. Stewart: Paralysis of the Cervical Sympathetic.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Keetley: Injuries to Upper Extremity.

SAMARITAN FREE HOSPITAL FOR WOMEN (Marylebone-road, N.W.).—3 P.M. Mr. Handley: The Operative Treatment of Breast Cancer.

NORTH-EAST LONDON POST-GRADUATE COLLEGE (Tottenham Hospital, N.).—4.30 P.M. Dr. G. N. Meachen: Skin Disease in Children.

CHARING CROSS HOSPITAL.—4 P.M. Mr. Clogg: Demonstration of Surgical Cases. (Post-Graduate Course.)

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (7, Fitzroy-square, W.).—5 P.M. Lecture: Dr. F. W. Price: Emphysema (illustrated by cases). (Post-Graduate Course.)

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Lecture:—Mr. Steward: Adenoids.

FRIDAY (9th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. H. W. Dodd: Clinique. (Eye.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. R. Jones: The Varieties of Insanity met with in General Practice.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury, W.C.).—3.30 P.M. Dr. A. Turner: Gait in Nervous Diseases.

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

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WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 1st, 1904.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
Nov. 25	29·75	N.	...	41	36	31	33	34	Overcast.
" 26	29·92	E.	...	40	37	30	32	33	Foggy
" 27	29·91	W.	...	45	39	29	30	31	Fine
" 28	29·76	W.	...	47	41	31	35	36	Foggy
" 29	30·01	W.	...	48	44	33	34	35	Foggy
" 30	30·07	W.	...	52	51	35	42	43	Misty
Dec. 1	29·99	W.	...	58	52	43	47	49	Dull

During the week marked copies of the following newspapers have been received:—*Westminster Gazette, Yorkshire Post, Walsall Advertiser, Surrey Advertiser, Reading Mercury, Mining Journal, Local Government Chronicle, Daily News, Liverpool Post and Mercury, Daily Chronicle, Standard, Literary Digest, Aberdeen Weekly Free Press, Cardiff News, Plymouth Mercury, Halifax Courier, Freeman's Journal, Hertfordshire Mercury, Windsor and Eton Express, &c.*

Communications, Letters, &c., have been received from—

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J.—Dr. Robert Jones, Claybury.

K.—Dr. Leonard Kidd, Lond.; Messrs. H. and T. Kirby, Lond.; Messrs. D. J. Keymer and Co., Lond.; Mr. R. V. Khedkar, Kolhapur, India; Messrs. R. A. Knight and Co., Lond.

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